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- ART. I.—1. *Zend-Avesta, avec des recherches sur la vie de Zoroastre.* Par M. ANQUÉTILO DU PERRON. Paris. 1771.
2. *Zoroastre, Confucius et Mahomet.* Par E. C. PASTORET. Paris. 1787.
3. *Histoire de la religion des anciens Perses.* Par HENRI LORD. Paris. 1667.
4. *Voyages de Tavernier.* Paris. 1713.
5. *Historia religionum veterum Persarum.* THOMAS HYDE. Oxford. 1760.
6. *Tureschki-Zurtoshto, or Discussion on the era of Zoroaster.* By NOURAZIE FERDONJEE. Bombay. 1851.

ASIA, which to many minds presents few other ideas than ignorance, sloth, and superstition, has given to the world its principal religions, its greatest legislators, and its earliest and most remarkable philosophers. The teachings of Buddha, which foreshadowed the great discoveries of modern science, were first heard on the banks of the Ganges; the sublime moral lessons of Confucius were imparted in the secluded region of China; the revolution inaugurated by Mohammed had its rise among the deserts of Arabia; and the philosophy

of Zoroaster, at once the purest, the most mysterious, and the most profound, emanated from the mountains of the Persians.

Who was Zoroaster? is a question which has perplexed philosophers in all ages. His birthplace, his parentage, the very period of his existence, have all formed subjects of continued discussion. There have been writers who considered him identical with Moses; others have denied his very existence.\* The quasi-biography recorded by Anquétil on the authority of a prayer recited by the Parsees is a tissue of the wildest fables, and so replete with self-contradiction that it may, in a historical point of view, be discarded as worthless. In like manner, the Grecian and Mohammedan writers, who have made this philosopher their theme, are so utterly at variance with one another and with themselves that they can be considered to have preserved little beyond vague traditions. The utmost that can be gathered from their accounts, with any appearance of certainty, is that Zoroaster† was born about the year 530 B. C., that is, in the same century with Buddha and Confucius; that his principal ministrations were in the reign of Darius Hystaspes; and that circumstances in early life brought him into intimate connection with the Hebrews, from whom he derived many of the peculiarities which distinguish the religion that he founded.‡ His birthplace is variously represented to have been in China, Europe, Syria, and Persia; § the last mentioned is, however, most generally accepted. Anquétil claims for him, on the authority already mentioned, a descent from the ancient kings of Persia, || but this is contra-

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\* Huet. *Démonstrations évangéliques*, prop. 4, 20, 73.

† *Zerethroschtro* in Zend, *Zerdusht* in Parsee, *Zoroastres* in Greek.

‡ "Le sacerdoce renfermé dans un seul tribu, la dime accordée au ministre des autels, la distinction des animaux purs et impurs, les ablutions fréquentes, les moyens de se garantir de toutes sortes de souillures, la manière dont on les contractait, mille autres conformités qui ne sont pas moins frappantes, ont passé des livres des Juifs dans ceux de Zoroastre ou de ses disciples."—Pastoret, p. 9.

§ Hyde, ch. xxiv., p. 315; Medjidi, Bundari, Mohammedan writers.

|| Anquétil t. i., p. 8.

dicted by the general testimony of his biographers who agree in ascribing to him an humble origin.\* It is said that a considerable portion of his youth was passed in the service of one of the Hebrew prophets.† As to the name of the prophet, the biographers present the usual discrepancy in their statements. Some authorities represent him to have been Ezekiel, others Ezra, others even carry the period back to the Israelitish monarchy, and say that the sage's master was Elijah. However this may be, there can be no doubt that he formed a close and intimate acquaintance with the Hebrew Scriptures, and was especially impressed with the promise that another prophet like Moses should arise whom all the people should obey. Had he continued among the Hebrews, there can be little doubt that he would have ultimately announced himself as the promised successor of Moses;‡ but on being discharged by his master, Mohammedan writers say with disgrace, on account of some base deception, he retired into the mountain regions, and there in solitude and reflection framed the new system which he afterward represented himself to have received from the Supreme Being. This retreat is always spoken of by Zoroaster's disciples as his journey to the throne of Ormuzd. Here they believe him to have been miraculously transported into the presence of God himself, and permitted to question him, and the responses of Ormuzd are supposed to be embodied in that great work, the Bible of the Parsees, known as the Zend-Avesta.

At the time when Zoroaster, emerging from his retreat, came forth before the world as the apostle of a new religion, the majority of mankind were sunk in the deepest paganism, and the masses, for the most part, plunged in the densest religious ignorance. The religion of Egypt was couched in mysterious emblems, of which the key was held by the priest-

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\* Hyde, ch. xxiv., p. 316; Prideaux, *Ilist. des Imp.*, t. ii., p. 25.

† Deut., ch. xviii., v. 15-18.

‡ Some accounts say that he actually did so announce himself. See Pastoret, p. 10, and Hyde, ch. xxiv., p. 320.

hood alone. The wise men of Greece were engrossed with abstract philosophical discussions. Rome was in its infancy—her strong religious element had yet to be developed. Persia had subsided into star and genii worship, and revered alike the spirits of evil and good. India was divided between the monstrous superstitions of Brahminism and the atheism of Buddha. China, broken into small and independent principalities, had become a prey to the worst governments, and turned a deaf ear to the sage who was already seeking to enlighten her. Even the Jews, tainted with the idolatry of surrounding nations, had well-nigh abandoned their monotheistic worship, and were preparing the way for the terrible retribution which they were so soon to encounter.

We may, therefore, readily imagine the effect produced by a teacher who should appear before the world as an apostle divinely inspired; preaching a religion which was imparted to all, the ignorant as well as the learned—a religion which embraced at once truths which the simplest could comprehend, and mysteries which engrossed the attention of the most erudite sages—a religion which revealed the existence of a Supreme Creator, Ruler, and Governor—of one who cherished and guided his creatures and who stood before them revealed in the orb which they recognized as the source of life and blessings, who would protect them from the malice of the evil agent whose influence they recognized in the ills of their daily life, who was accessible to prayer and would hear and relieve the wants of his creatures; a religion, moreover, which established an intermediary between creator and creature in the shape of an unchangeable priesthood, and perpetuated its teachings by a sacred ritual which should keep them continually in remembrance. The religion of the Jews, it is true, contained many, if not all, of these elements; but the Jews were in this, as in all other things, exclusive. Their God was their own—not the God of the Gentiles. His promises they considered as made to them alone; and, so far from desiring to impart his worship to the surrounding nations, they guarded it with the most jealous care as their own peculiar privilege.

Even while polluting their own worship with the grossest forms of Syrian and Phœnician idolatry, they concealed as jealously the secrets of their own faith, and refused to impart it to the very nations whose religions they were willing to adopt.

The teachings of Zoroaster, on the other hand, were offered to the world at large; and it is not surprising that his religion should have spread with unexampled rapidity. It is said to have accomplished its work in five years;\* to have extended its influence into India, where the Brahmins, who at first opposed it, were wonderfully converted;† and to have secured a firm adherent in King Darius, by whose authority it was established throughout the Persian Empire.‡ There can be little doubt that Zoroaster was the king's prime minister and chief adviser; for it was by his advice that the annual tribute which had for generations been paid to the king of Tourania was discontinued, on the express ground that this monarch, by rejecting the new religion, had forfeited his right to receive it. A long war ensued, in which the sacred fires were continually extinguished and re-kindled. Eventually the victory of Darius re-established them throughout the empire, and a permanent guard preserved them for centuries from the risk of future extinction.§

Of the personal life of Zoroaster, few details are preserved. It is said that, at the age of sixty-five, he gave instructions at Babylon, where the Grecian sage, Pythagoras, is said to have been among the number of his disciples. He is also said to have reached the age of seventy-seven years. It is certain that, among the marriage ceremonies of the Parsees, there is a prayer that the bride and groom may live as long and attain as much renown as Zoroaster.¶ All nations united to do homage to his memory. The Greeks spoke of him as a

\* Hyde, ch. xxiv., p. 323. † Anquetil, p. 47.

‡ Hyde, ch. xxiv., pp. 318, 319.

§ Pastoret, p. 15; *Zend-Avesta*, vol. i., part ii., pp. 55, 56.

¶ *Mémoires de l'Académie*, t. xxxix., pp. 716, 717.

messenger from heaven.\* The Orientals call him Hakim or Sage, which title is conceded him even by the Mohammedans, despite their aversion to his disciples.†

Notwithstanding the veneration in which the name of Zoroaster is held, there is no sage of antiquity of whom so little is known with certainty. Even the few events above recorded, which have been accepted by most of his biographers, rest on evidence of by no means a positive nature. Iran, by which title the region in which he lived is mentioned in the Zend-Avesta, comprised not only Persia, but a territory extending considerably to the east and south. The native traditions, from which the sage's biographies are generally taken, speak of the King of Iran who became a disciple of Zoroaster as Vistaspa. This name the Greeks pronounced as identical with Hystaspes, and assumed that it designated the sovereign who ruled Persia about 500 B. C., but some of these very traditions represent Vistaspa as the last of the Kaianian princes who ruled in Bactriana; and, as the conquest of this region by the Assyrians is estimated to have occurred about 1200 B. C., this tradition would carry Zoroaster back to a period far antecedent to the reign of Darius.

The teachings of Zoroaster are principally comprised in the great work known as the Zend-Avesta, or, more properly, the Avesta, the word *Zend* denoting simply the translation into the Zend or Parsee language. Although extremely voluminous, it is generally supposed to be but fragmentary, the bulk of the sage's writings having been destroyed at the time of the conquest of the East by Alexander. The original work is said to have consisted of twelve great volumes written on bulls' hides, of which a single one was a heavy load for a bullock to carry. The work now remaining is made up of distinct parts, of which the chief are the Vendidad and the Yaena. The Vendidad is pre-eminently the book of the law—it is chiefly prescriptive of the moral and ceremonial

\* Apuleius, Floridor, vol. ii., p. 17; Plato, Alcibiades, vol. ii., p. 122.

† *Mémoires de l'Académie*, t. xxvii., pp. 259, 342.

code, teaching the mode of avoiding sin and impurity, and the general principles of the new religion. It is principally in the form of responses uttered by Ormuzd, the Supreme Being himself, to the questions of Zoroaster. The Yacna is a collection of psalms and prayers; it is in two parts, of which the second, written in a more antique dialect, and evidently much the older, is probably the composition of Zoroaster himself. A third part, the Vespered, is composed of hymns, analogous to those in the newer portion of the Yacna. There are also the Jeschts Sâdès or prayers of the faithful, in which is set forth much of the doctrine and discipline.

When we consider the religious system of Zoroaster, and remark its entire dissimilarity to all heathen systems, and its close analogy with that contained in the Hebrew Scriptures, we cannot fail to be struck with astonishment. Its fundamental doctrine is the existence of a sole uncreated being, to which Zoroaster gives the name of Zerouane Akerene, or the Eternal. This being, he taught, had always existed, and would ever exist, creator of all things. His first creations were water, light, and fire. From the union of light and fire proceeded Ormuzd, the Spirit of Good, who presides over the universe. The Eternal likewise created Ahriman, the divinity or spirit of evil.\* Anterior, however, to both these creations existed the Word, the first of all created beings, and by whom all beings were created.†

Of the two divinities, Ormuzd is essentially good; Ahriman essentially evil.‡ Between them a conflict has existed, and will continue to exist for twelve thousand years. Ormuzd will, however, ultimately triumph.§

Each of these principles is supposed to have generated other beings, spiritual and corporeal, who act as their agents. The object of Ahriman is to tempt mortals, and thus increase

\* *Zend-Avesta*, vol. ii., part ii., pp. 343, 344.

† *Ibid.*, vol. i., part ii., p. 139.

‡ *Ibid.*, vol. ii., p. 592.

§ *Boum-Dchesch*, pp. 345-347.

the number of the wicked, in order to extend his power.\* He can be resisted only by the power of prayer, which is, therefore, the principal duty of the disciples of Zoroaster. There is no event of life, even the most ordinary,† which is not to be preceded and followed by prayer. These prayers are addressed not to Ormuzd alone, but to the celestial spirits of his creation, each of which has its peculiar sphere of action in the affairs of life.

The material universe is supposed to have been created in the form of a bull, whence proceeded in order plants, animals, and lastly the human race. This idea appears to have been connected with the great reverence entertained by the disciples of Zoroaster for agriculture, which they esteemed—next to prayer—the first duty of man. “He who sows grain,” says the Vendidad Sâdê, “is as great before Ormuzd as if he had given existence to one hundred creations.” Yet, highly as the bull was revered as the symbol of creation, no worship was allowed to be addressed to it, nor was it invested with peculiar sanctity, as among the Brahmins and the Egyptians. On the contrary, animal worship was strictly forbidden.

Free-will, the resurrection of the body, original sin, the immortality of the soul,‡ form part of the faith of Zoroaster. Paradise awaits the good; hell the wicked. “He who followeth not thee,” says Ormuzd to his prophet, “ask me not his destiny. Punishment awaits him at the end of the world.”§ Yet this punishment is not believed to be eternal, but only in proportion to the crimes committed; and, even during the period of punishment, the condemned are allowed a release of four days in each year in which they give thanks to Ormuzd, and at which times such of them as have sufficiently

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\* *Izeshné*, p. 170.

† “Even sternutation, which is considered an especial occasion for thanksgiving, as indicating the expulsion of evil genii from the interior of the body by the divine fire which animates the human frame.”—*Anquetil*, p. 598.

‡ *Jescht de Taschter*, p. 189.

§ *Anquetil*, p. 44.

expiated their sins by penitence, by sufferings, or by the prayers and good deeds of their friends, may be finally delivered from punishment. At the end of the world the doors of hell are to be opened, and all its inmates released therefrom.

The punishment inflicted in hell is not through the agency of fire. This is by far too pure and holy an element for such a purpose. Fire, according to Zoroaster, is the offspring of the Eternal, and the universal principle of life. This fire, regarded as a divine essence, was represented by Zoroaster's orders by a visible fire perpetually maintained upon the altars. Before it the disciples uttered their prayers, and on it the priests, five times each day, cast seasoned wood and precious odors. To allow this fire to expire through negligence was a crime punishable with death.\* Ordinary fires, however, might be extinguished, but never with water. This being also a sacred element, to cast it on the fire would be to establish a conflict between two most holy principles; therefore, even in the case of a conflagration, the flames were permitted to be stifled only with earth and stones.† The use of water for such a purpose was punished with death, and was supposed to incur eternal damnation.‡ Neither was it permitted to blow upon fire in any way; even a candle might not be extinguished by the breath, lest the foul exhalations from the body should defile the sacred element. The pollution of the sacred fire by the breath was considered so deadly a profanation, that even the priests on approaching the sacred altar were required to cover their mouths with a gauze. It was held a want of respect to the sacred fire even to diminish its brilliancy by exposing it to the sun's rays, or to allow a dead body to remain in the neighborhood. Even the priests who had removed the dead body became by the act ceremonially unclean, and were required to be purified before they could approach the sacred altars.§ At the same time, neither

\* Prideaux, t. ii., p. 45; Hyde, ch. i., p. 19.

† Hyde, ch. i., p. 19; Anquetil, t. ii., pp. 56, 57.

‡ *Mémoires de l'Académie*, t. xxxvii., p. 714.

§ *Zend-Avesta*, vol. i., p. 341.

the fire nor its ministers were considered polluted by offerings expressly made to it—these in all cases it was allowed to consume.

Other elements were in like manner revered, and their purity strictly preserved. The disciples of Zoroaster were not allowed to cast any thing into the water, and they even destroyed all amphibious animals lest they should pollute the sacred element. The air was not to be defiled by the decomposition of corpses; therefore, great pits were prepared and lined with stone, in which the dead were deposited until the wild beasts and birds of prey had removed all traces of the flesh from their bones, which last were alone allowed to be deposited in the earth. Even the earth in which these bones had been deposited it was prohibited to cultivate for fifty years.\* But the element chiefly revered, as we have seen, was fire. This was the object of worship—the visible representative of Ormuzd. In this we have, in all probability, a distinct reminiscence of the sacred flame, or Shechinalh, of the Jews,† which, however, in their case, was believed to be an actual manifestation of the Deity.

The term *Magi* was applied at a very early period to the priests of Zoroaster. It is even claimed by some writers to have been derived from his own name, which was *Mag*, the term *Zerethroschtro*, from which the Greeks derived Zoroaster, being applied to him only when he entered on his public ministry. At all events, we know that the term *mojh* or *mujh*, from which the Latin word *magus* is derived, was that ordinarily used to designate the priesthood.‡

These magi or priests became in time the repositories of all the learning of the period—sciences the most recondite, which were unexplored by the generality of mankind—secrets of nature till then unknown—and especially the knowledge

\* *Vendidad Sâdê*, f. vii., p. 324.

† This is the opinion of Dr. Hyde, who says expressly, "Sumpto exemplo ex igne altaris in Templo Dei, didicerunt in suis Pyreis ignem servare perennem."—Hyde, ch. i., p. 2.

‡ Hyde, ch. xxx., pp. 369–371.

of the stars and their movements in reference to this planet. Much of this knowledge had undoubtedly been acquired by Zoroaster himself, either during his sojourn among the Hebrew sages, through whom much of the learning of the Egyptians had been handed down from Moses, or during his long period of seclusion and study in the mountains. This knowledge of the operations of nature enabled them to foretell events in a manner which to the people would appear supernatural, and also to work many apparent miracles.\* Hence, the term magic, applied in after days to the science of divination. But the magic of Zoroaster was far removed from the idea of vulgar necromancy. It was regarded as something high and holy, inspired by Ormuzd, and indicating the highest order of science combined with religion. There had been a species of necromancy practised before Zoroaster's time—this was conducted by a class who professed to hold commerce with evil spirits, and by a species of jugglery maintained a hold over the minds of the people, which they often abused to evil purposes. This species of magic Zoroaster indignantly denounced, pronouncing it an evil art produced by Ahriman.† The magic of Zoroaster and his disciples was, on the contrary, held in the highest reverence by the children of the East. The magi were at once their sages, their philosophers, and their priests. The king consulted them on occasions of moment; to them was confided the education of the heir to the throne. From his earliest infancy the prince was instructed in divination by four sages distinguished for wisdom and holiness; and he was not considered fit to reign until he had acquired from them the principles of religion and the art of government.‡

It was principally owing to this element that the philoso-

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\* "Medjidi, ecrivain Mahometain, parle aussi des connaissances de Zoroastre dans l'art des prestiges, et des secours qu'il a tiré pour étonner le peuple par des prétendus miracles. Il ne borne pas là cependant le mérite de cet imposteur célèbre. Il annonce que sa mémoire embrassait les sciences les plus rares et les plus étendus."—Pastoret, p. 9.

† *Vendidad*, f. i., p. 268.

‡ *Cicero de Divinatione*, lib. I., p. 310.

phy of Zoroaster was received with such avidity by the Greeks. It was transmitted to them by Ostanès, his successor, who accompanied Xerxes on his expedition into Persia—so, at least, is averred by Pliny, who adds: “*Maxime ad rabiem, non aviditatem modo, scientiæ ejus Græcorum populos eget Ostanès.*”\*

The laws proclaimed by Zoroaster being believed to proceed directly from Ormuzd, their study, of course, became the duty of his disciples, and is expressly commanded in the sacred writings. This study was commenced at the age of fifteen years; or, as we should say, fourteen years and three months, the period of gestation being included in the computation of age. From this period the youth assumed the title of Behdin or follower of the laws, and became a member of the spiritual body of his nation.† At a still earlier age he received the girdle called Kosti, as an emblem of the faith to which he was devoted. The anniversary of the day on which this girdle was conferred was thenceforth celebrated as the birthday of the young professor.‡

The observance of festivals formed an important feature of the Zoroastrian religion. The chief of all their holidays was the first day of the year—called Norous, or Niraus—on which it was believed that the world was created, the law adopted, and the resurrection destined to take place.† Numerous other festivals were prescribed in honor of the different spiritual beings by whom the universe was supposed to have been created, and to whose care its various departments were especially committed. These minor festivals are too numerous to mention in detail—the one most zealously observed was Me-hirdjan, which was kept at the commencement of autumn, and was held in honor of Mithra, the celestial being who presided over agriculture, and was the chief friend of man.‡ But there was one most peculiar festival which we cannot pass over, as well on account of its singularity as from its marked resem-

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\* Pliny, vol. v., lib. XXX., ch. i., sec. 2, p. 538.

† Hyde, ch. xxviii., p. 317, and ch. xxxiv., p. 414.

‡ Herodotus, i., p. 63.

blance to the Saturnalia of the Romans. A criminal under sentence of death was taken from prison, arrayed in the royal robes, and seated on the throne. For five days he was sovereign, absolute and despotic—even the royal harem was not prohibited to him. During this period the relations of society were subverted—masters obeyed their slaves and slaves assumed the prerogatives of their masters. But the moment the festival was at an end, the mock monarch was disrowned, disrobed, scourged, and conducted to instant execution.\* This one feature of barbarism, in a religion distinguished for humanity and wisdom, was in all probability the remnant of some ancient custom older than Zoroaster himself. This is the opinion held by the modern disciples of the sage.†

The benevolence of the Zoroastrian system is more apparent in the provision which it contained that at all religious festivals the rich should bestow on the poor the money and provisions necessary to enable them to keep the feast.‡ From these festivals no persons were excluded except the ceremonially unclean. This uncleanness might be the result of natural causes, of contact with an unclean object (*hamrid*), or contact with a person who had himself been rendered unclean (*pitrid*).§ One of the most remarkable features of the law of uncleanness was that it was graduated according to the quality of the object which conferred the uncleanness, the corpse of a priest creating a less degree of uncleanness than that of a laboring man, and the corpse of a naturally clean animal than that of an animal essentially unclean.||

There were three ranks in the Zoroastrian priesthood—the Mogh or Mugh (also called Herbed), who were the ordinary priests or magi; the Mubad, or superior of a province, whose office was not unlike that of a Christian bishop, as with him rested the right of selection from among the candidates for the priesthood, and also the power of conferring the priestly power; and, finally, the Mubad Mubadan, the head of

\* Dion Chrysostom, orat. iv., pp. 69, 70. † Anquetil, pp. 579, 580.

‡ *Jeschts Sâdê*, sec. 28, pp. 86, 87. § *Vendidad Sâdê*, f. v., p. 303.

|| *Vendidad Sâdê*, f. vii., p. 317.

the faith, or High Priest, who was esteemed to be the successor of Zoroaster himself.\* For this office the priest was selected who was at once the most learned in the law and the most eminent for good works. Still, he was so far from being regarded as infallible, that he was liable to the severest punishment in case of transgression. To him was accorded the tithe of the revenues of the citizens, in which, however, the Mobeds were permitted to share. For the priests the utmost veneration was exacted, and to those who failed in due reverence annihilation was predicted. They were the judges in all litigation;† they even directed the military operations, but trade and labor were strictly prohibited them.‡ This prohibition appears the more extraordinary when we consider the high esteem in which agriculture was held by the disciples of Zoroaster; the active cultivation of crops for food being recommended by Ormuzd as a work of the highest merit.§ Physically they were required to be free from blemish, and morally they were held to such a degree of purity, that no priest might even drink from a cup that had been used by a stranger, lest he should become by that action tainted with the sins which the other might have committed.||

Their sources of revenue were numerous. Besides the voluntary contributions of the people, and the costly presents which they received from the king and nobles, there were customary fees required to be paid to them on every act of purification, the payment of which fees was so imperative that the neglect to render them vitiated the entire purification, and left the delinquent under all the disabilities of uncleanness. These disabilities could be removed only by payment, and, if the delinquent died a debtor to the priests, his only chance for salvation rested in the payment of the arrears by his kindred. Even the prayers of the priests were not to be obtained without payment; and were the coin in which they themselves paid their debts, even to the physician

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\* Hyde, ch. xxx., pp. 369-371; *Izeschné*, vol. lxix., p. 246.

† Hyde, ch. xxx., p. 372.

‡ Anquetil, p. 556.

§ *Vendidad Sadr*, f. iii., p. 289.

|| Hyde, ch. xxviii., p. 357.

who attended them in sickness. They partook of the offerings, a certain class of which, such as vestments and articles of personal use, they were permitted to appropriate altogether. Yet, though so liberally remunerated, the office of the priests was, by no means, a sinecure. In addition to the constant observance of a laborious ritual, their time and the treasure which their revenues enabled them to accumulate were devoted to the extension of their already vast stores of knowledge, until the name of magi became, as it has ever continued, associated in all minds with the idea of wisdom the most exalted and knowledge the most profound in the history of mankind.

Marriage was an institution highly commended by Zoroaster, and enjoined upon his disciples. It was a heinous crime for a parent or guardian to refuse to give his daughter or ward in marriage when she had attained a nubile age. It was likewise a crime in the maiden herself to remain single until the age of eighteen, and, if she died unmarried, hell was her portion until the resurrection.\* To avert this catastrophe, the children of the Zoroastrians were betrothed at a tender age, but the ceremony of marriage was deferred until the parties had attained nubile years. The ceremonies of betrothal and marriage, as well as the prayers to be used on each occasion, are prescribed in the *Zend-Avesta*.† Nearness of kin formed no bar to marriage; on the contrary, cousins german were expressly recommended to marry. As under the Mosaic dispensation, a widow might marry the brother of her deceased husband, and the child of such marriage was brought up as the heir of the deceased; but this practice, which was considered obligatory among the Hebrews, was by the Zoroastrians only permitted, not enjoined.‡

Five species of marriages were recognized by the Zoroastrian law. The first was the marriage of a virgin; the second, that of the widow who espoused the brother of her deceased husband to provide an heir for the former marriage.

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\* Anquetil, p. 557.

† Vol. ii., p. 95, *et seq.*

‡ *Zend-Avesta*, vol. ii., pp. 32, 556, 612.

The third and most peculiar was, when a man had died unmarried, and his friends, in order to secure his speedier admission into paradise, procured, for a sum of money, a woman to be married to him in form.\* The fourth was the ordinary second marriage. The fifth, and last, was the marriage of a daughter in opposition to the will of her parents. A marriage of this sort involved disinheritance, and was considered of so doubtful validity that, if children were born, the parents were required to re-marry on the issue attaining the age of fifteen years.

Whether Zoroaster permitted polygamy is uncertain. Tavernier holds that he did.† Anquetil is of the contrary opinion, except that, in the case of continued sterility, the husband might marry, with the permission of the wife, a person of inferior rank whose offspring were brought up as that of the lawful wife.‡ This practice recalls the story of Jacob and Rachel in the Hebrew Scriptures. Indeed, we can scarcely turn to any part of the Zoroastrian code, civil, moral, or religious, without being forcibly reminded of the Mosaic and anti-Mosaic usages commemorated in the Pentateuch. Divorce was, however, permitted in certain cases, all arising out of misconduct on the part of the wife, such as infidelity, practising the black art, or apostasy from the true religion.§ Conjugal fidelity was enjoined on both husband and wife; the latter was, moreover, commanded to render her husband respect, submission, and obedience.|| Rewards are promised by Ormuzd to the dutiful wife, and heavy chastisements threatened to such as are rebellious. The same implicit obedience was required from children to their parents, disrespect or disobedience thrice repeated being expressly made punishable with death.

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\* "Les enfans étant les degrés qui conduisent au ciel, et leurs bonnes actions étant des mérites qui font passer à leurs parents le pont Tehmerad (pont qu'on suppose que les âmes passent nécessairement pour monter au séjour céleste) c'est un malheur de mourir dans le célibat, et on croit y remédier par cette espèce de mariage."—Anquetil, pp. 560, 561.

† *Voyage de Perse*, t. ii., ch. viii., p. 49.

‡ *Usages civils*, p. 561.

§ Anquetil, p. 561.

|| Anquetil, pp. 561, 562.

According to Herodotus and Valerius Maximus, children were not permitted to appear before their parents until they had attained the age of five or seven years; but this seems hardly reconcilable with the statement in the Zend-Avesta that, during this period, faults committed by the child were laid to the charge of the parents. The law, as published, simply prohibits the parents from teaching their children during early infancy, limiting their duties to preserving them from uncleanness.\* The education of children devolved not on the parents but the priests, who exercised an authority equal if not superior to that of the parents themselves.

Rank was not hereditary among the Zoroastrians—the throne alone was transmitted by descent. Even the priesthood was recruited from the people. We find here nothing like the sacerdotal caste of the Brahmins or the Levites. The sole professions recognized were those of priest, warrior, laborer, and artisan—even certain mechanical arts were prohibited, as, for instance, that of the blacksmith, which was considered to pollute the sacred element of fire. Loans of money on interest were permitted, but the taking of compound interest was forbidden under strict penalties.† The payment of just debts was prescribed as a moral duty without reference to the relative circumstances of the borrower and lender. “Even when the lender is rich,” says the Vendidad, “it must be studied day and night how to repay him.”

Like the generality of ancient legislators, Zoroaster occupied himself in regulating the private morals of individuals as well as the public morals of the community. The principle which he appears to have been especially careful to instil was purity—purity in thought, word, and action. With the assertion of this principle commences the opening prayer of the Vendidad.‡ For this the highest rewards are promised.

\* Anquetil, pp. 551, 552.

† *Zend-Avesta*, vol. ii., pp. 2, 38.

‡ “I pray with purity of thought, with purity of word, with purity of action. I devote myself to every good thought, to every good word, to every good work. I renounce every evil thought, every evil word, every evil work.”—*Vendidad Sade*, ch. i.

"Prosperity," say the prayers in the Zend-Avesta, "is the portion of the just and the pure."\* Every evil thought is to be combatted—thoughts of jealousy, pride, ambition, anger, and covetousness are forbidden, and if openly manifested are to be criminally punished.† Language was to be held under the same restraints. Impure conversation, detraction, slander, irreverent mention of the Eternal Being, of Ormuzd, of the good genii, or of Zoroaster, evil teachings, abusive language, falsehood, either uttered or commanded, were all interdicted under severe penalties. Truthfulness is required of all, but especially in the priests, because it is supposed to be directly imparted by Ormuzd to those selected for his service. Violence of all kinds, whether actual or permissive, is denounced, as are those who witness an act of violence without interposing to prevent it. Sowers of strife and tale-bearers are denounced in emphatic language; also ingratitude and intemperance, for which a heavy penalty is ordained. But the offence of all others which the Zoroastrian code most strongly reprobates is want of chastity. Every offence of this nature, according to Zoroaster, diminishes by one-third all the resources of Nature: "It is like a wolf, the worst of wolves, which springs upon all that is in the world; or like the thousand frogs which infest the water." Almsgiving is a duty earnestly prescribed by Zoroaster, and it is only by surpassing eminence in relieving the distressed and succoring the oppressed, that a prince could become qualified for the throne. Forgiveness of injuries is another maxim, but this does not include the love of enemies who persist in their hostility after forgiveness.‡ If, however, the enemy repented and acknowledged his fault,

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\* *Vespered*, cardè i.; *Vendidad Sâdê*, p. 120.

† *Jeschts Sâdê*, 15, 17, etc., pp. 33, 39, 46; *Vendidad Sâdê*, f. xviii., pp. 4, 71.

‡ "Prescrire l'amour d'un ennemi qui serait dans ces dispositions, c'eût été, selon les principes de Zoroastre, ordonner à aimer un homme livré en quelque sorte à Ahriman, ou plutôt, cette morale était trop élevée pour qu'une sagesse humaine, telle que celle du législateur Perse, pût y atteindre."—Anquetil, p. 628.

he was not only to be forgiven, but to be received as a friend.

Secret sins of all kinds are represented as particularly obnoxious to Ormuzd, and the disciples are instructed to invoke vengeance in their prayers on the heads of those who commit them. On the other hand, it was taught that any sin, however grievous, might be expiated by sincere repentance and amendment.\*

To stir up war is denounced as criminal; and, when war becomes a necessity, the wrath of Ormuzd is denounced upon him who intensifies its horrors by acts of cruelty or oppression, or who does not mitigate them by every means in his power. Clemency on the part of the conqueror is expressly ordained, and the severest judgments are threatened to those who make a hard or oppressive use of their triumph.

Friendship is highly commended in the Zend-Avesta, both particular affections and general good-will toward all mankind. The Vendidad instructs each disciple to make it his especial object to gratify his fellow-mortals and the spirits who preside over inanimate nature.† But one of the highest moral duties of the disciple was to devote himself to agriculture and its kindred occupations. The sower of grain is pronounced as acceptable to Ormuzd as the act of creation. Heaven is expressly promised to those who tend well their flocks.‡ The Vendidad itself abounds in instructions how lands are to be tilled, how flocks should be pastured and tended, and all the details of an agricultural and pastoral life. All these laws, moral as well as civil, were believed to have been given to Zoroaster, during his period of mountain seclusion, by Ormuzd himself, and their relative importance was set forth in the response of Ormuzd to the prophet's inquiry, which of his servants he esteemed the most highly.

\* *Vendidad Sâde*, f. iii., pp. 2, 3, and f. ix., pp. 362, 363.

† "Seek to please the fire, to please the water, to please the earth, to please the cattle, to please the trees, to please the pure man, to please the pure woman."—*Vendidad Sâde*, f. ix., p. 361.

‡ *Izeschnê*, xxxv., p. 179; *Vespered*, cardè xxv., p. 213.

The first, he was informed, was the man whose heart was pure; the second, he who was liberal and just to all mankind, and who looked not upon riches; the third, he whose heart prompted him to do good to all visible creation, to the fire, the water, plants, and animals; these disciples should be eternally rewarded.\*

When we turn to the criminal code of Zoroaster, we are at first shocked by the apparent severity, if not atrocity, which places it in such marked contrast with the general benevolence of his legislation. In addition to the ordinary penalties of death by the cross, the stake and faggot, and lapidation, there was the hideous punishment of the Bodavaresté, or hewing the living body into pieces, which is expressly prescribed by the Zend-Avesta in cases of contempt of the law, infanticide, and other heinous crimes;† also the scarcely less fearful sentence of scourging with thongs of chamois leather, which, by a refinement of cruelty, was not nominally a death penalty, but was directed to be applied as many times as the sinner was doomed to suffer years in another world. As these years counted by thousands, the practical result of the sentence would be inevitably fatal. This was the punishment of the Mithra-daroudi, or violation of the plighted word; for the Aguéresté, meditated or projected violence; for the Eou-vereschté, or actual violence; and for the Aredosch, or inflicting of wounds on another. In all these cases, as also in sins against chastity, the scourging was so long as to be fatal. In case of theft or fraud, it was not materially different; the number of blows prescribed five for the first offence, increasing in geometrical progression each time that the offence was repeated. Infanticide was punished by the Bodavaresté;‡ but no punishment was provided for parricide, that being considered an impossible crime.§ These criminal laws were, by no means, limited to the human race. They applied in

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\* *Zerdust-Narush*, ch. xxiii.

† *Zend-Avesta*, f. iv., pp. 297, 324, 325.

‡ *Vendidad Sâde*, f. xv., pp. 363, 364.

§ *Anquetil*, p. 553; *Herod.*, i., p. 64.

like manner to crimes committed by or even against animals. Dogs especially were punishable by the Bodavaresté for injuries done by them to men, or other animals, and the same punishment was inflicted on a man who should, without reason, beat, maim, or kill a dog. This especial regard for the canine race, a race considered unclean by most Oriental nations, appears to have arisen from the importance attached to the animal as the protector of flocks and herds, and also as the destroyer of savage beasts. But, on a careful inspection of the law, it becomes evident that these penalties were promulgated for purposes of terror rather than of actual infliction, and that, although these terrible sentences were continually incurred, they were rarely, if ever, inflicted, so numerous and practicable were the means provided for redemption and expiation. A criminal who had incurred these penalties might be relieved by giving a young virgin in marriage to a faithful disciple,\* by bestowing on a just man a fertile field for cultivation, a suitable fold for cattle, or a dwelling of proper dimensions, by exterminating noxious reptiles and insects from a prescribed tract, by providing a laboring man with the necessary implements of husbandry, with a head of cattle, or with the means of pasturage, by designated gifts to the priests or the military. The amount required for each class of offence was distinctly prescribed. When a criminal had committed an offence capable of expiation—there were few that were not—instead of enforcing the penalty against his person, his property, or so much as might be requisite to satisfy the demands of the law, was confiscated. This confiscation, however, only continued during his life. Immediately on his death, a council of partition was held. The portion allotted by law to the wife was paid to her in full, and the penalty was deducted from the residue and paid to the priests who, thenceforth, offered prayers for his pardon and salvation.† Yet, in no case were the children or descendants left without some portion of their inheritance, it be-

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\* *Vendidad Sade*, f. xiv., p. 391. † *Vendidad Sade*, f. iv., pp. 29, 36.

ing a maxim of the wise lawgiver that poverty was the great source of crime, and that to reduce the children of criminals to poverty on account of their parent's offence would be to increase the amount of crime in the world.

The conquest of Persia by Alexander struck the first blow against the Zoroastrian religion, which thenceforth began sensibly to decline, notwithstanding the veneration with which it was received in Greece, and gradually became corrupted by many foreign intermixtures. To remedy this, King Ardeshir Babekan (A. D. 226) called a council of the magi, by whom the religion was reformed, and as much as possible restored to its primitive purity. He, moreover, collected the sacred books, or such portion of them as remained, caused them to be translated from the antique or Zend dialect into the vernacular of Persia, and built temples for the sacred fires, in which the worship was maintained in its original form. The respect which Zoroaster and his teachings commanded, even among the conquering nations, appears to have for a long time secured immunity from outside interference; and, although the empire of Persia had long ceased, and it was now but a satrapy or Roman province, neither the emperors of pagan Rome nor the Christian sovereigns of Constantinople appear to have disturbed the maintenance of its worship. But a fiercer foe was destined to arise than either paganism or Christianity. When the apostle of Islam arose in the seventh century, and devastated with fire and sword all nations that refused to receive his teachings, Persia was overwhelmed with the general torrent. The magi saw their pyres overthrown, and their faith profaned. The rulers, who cared more for their personal well-being than for the faith of their ancestors, became ready converts to the creed of Mohammed.

The masses of the people as usual followed their rulers. The religion of peace fell before the religion of blood. A few, remaining faithful to their ancient worship, took refuge in the wilderness of Khorassan, where, in the most barren regions of the kingdom, they were contemptuously allowed to practise

their ritual in secret, and still maintain a struggling existence branded with the name of ghebirs or infidels. The efforts which they made from time to time to expel the invaders from their soil have never met with success, and they have gradually sunk into ignorance and poverty. Still, though as a race impoverished and despised, the learning of their magi forgotten, and compelled to maintain themselves by menial service in the surrounding country, they have maintained their worship, their faith, and the character for honesty, chastity, and obedience to law, which distinguished the Zoroastrian of early days. They are about 100,000 in number, and reside mostly in the neighborhood of Yezd, and in the surrounding territory. The principal site of their worship is in the neighborhood of Bakoo, a Russian town in Georgia on the shores of the Caspian Sea. Here, about fifteen miles from the village, emerges from the rocks a jet of inflammable gas, supposed to be the sacred fire. Over these the ghebirs have erected their temple, and here, in a remote district of Russia, little known and seldom visited, are found the last remains of the worship and religion of Zoroaster!

A less melancholy relic of the once world-revered faith is to be found in the regions of Hindostan. When the armies of Mohammed first overran Persia, a detachment of faithful Zoroastrians took refuge in Korhistan. These eventually emigrated to India; here they were kindly received by a rajah of Gazarat, and protected in the exercise of their religion, which they have preserved to the present day. These Zoroastrians are now known as the Parsees. They are generally prosperous merchants, and are highly esteemed by Europeans for their estimable qualities. They are the richest and most influential of the citizens of Bombay, and form about 115,000 of the population. They maintain intercourse with the ghebirs of Persia, but claim to be themselves the depositories of the sacred fire, which they profess to have brought with them from Korhistan, and to have kept continually burning. Their religious ceremonies became at one time tainted with Hindoo superstitions, but in 1852 a society was organized, called Ra-

humiai Magdiasma, or society of religious reform, which has done much toward re-establishing the Zoroastrian faith in its original purity.

When we consider the age of the world in which Zoroaster appeared, the ignorance which he enlightened, the knowledge which he disseminated, and the purity of the religion which he introduced, we are constrained to regard him with almost unqualified admiration. The knowledge of one God, and the absolute proscription of idolatry, would seem to partake almost of the character of a revelation. It was certainly without parallel, except among the Hebrews; for the faint conception of an Adi or ancient Buddha among the Buddhists of Nepaul can hardly be worthy of mention with it. The genii or ministering spirits of Ormuzd appear like a reflection of the Hebrew belief in angels. The reverence inculcated for the priesthood, the love of purity and truth, the efficacy of prayer, the inculcation of benevolence and charity, are to be found in no other religion of the period, if we except the Mosaic dispensation; and in the doctrine of the resurrection, of future rewards and punishments, and of forgiveness of injuries, we find elsewhere no exemplar whatever until the revelation of Christianity.

As a legislator, the wisdom and benevolence of Zoroaster become equally conspicuous. Nowhere else do we find laws so adapted to the general well-being. The promotion of marriage, the pecuniary assistance decreed to heads of families, the judicious regulation which at once forbade children to marry without their parents' consent, and parents from withholding that consent unreasonably; placing marriage within the reach of all; requiring the rich to impart of their goods to the poor especially at their great feasts; the impulse given to husbandry; the prohibition of speculation in grain, "which was," he said, "to incur the guilt of all the misery, famine, and distress in the world;"\* the measures taken to secure the fitness of physicians, priests,

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\* *Vendidad Sâdî*, f. xvi., p. 392, f. xvi., p. 467.

and teachers, for their respective offices ; the clemency of the criminal jurisprudence, which allowed offences to be atoned by acts of mercy and benevolence to mankind ; the abhorrence of war, and the injunction to soften its terrors ; all these show a wisdom unexampled in the history of legislation, and equalled only by its benevolence.

The standard of excellence set up by Zoroaster for his disciples may appear far-fetched and unattainable, but it has not been without its effect. We see the results to this day in the high, moral worth, and intelligence of the Parsees in India. Zoroaster has become but a name ; his religion a thing of the past ; his followers reduced to a handful ; but, when we contrast these followers with their surroundings ; when we study the teachings of Zoroaster, and realize what exalted moral lessons we can derive from them even for ourselves ; above all, when we recollect that the wisdom which he preserved through the darkest ages of antiquity was transmitted through nation after nation, and was the basis of much of the knowledge of the present day, we cannot but feel that his life was not purposeless, and must rank him among the greatest and noblest instructors and benefactors of mankind.

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ART. II.—1. *Theory of Moral Sentiments.* ADAM SMITH.  
Edinburgh, 1871.

2. *Elements of Morality.* WHEWELL.

3. *Cacactères de Theophraste traduits du Grec, ou les Mœurs de ce siècle.* LA BRUYÈRE. Paris.

4. *Les Causes de la Grandeur et de la Décadence des Romain.* MONTESQUIEU. Paris, 1857.

SOCIETY, in that narrow sense of the term to which we purpose confining it at present, may be defined as an alliance of persons between whom an unwritten understanding exists to deter outsiders from their more familiar intercourse and domestic hospitalities. In a given community there may be numerous sets, each of which jealously guards its approaches from the encroachments of the set immediately beneath itself, but generally opens its doors freely to seceders from the upper social strata. It is therefore plain that only the highest of these, or that which claims to be society *par excellence*, is unwilling to receive accessions from any quarter whatever, and it is to this alone that our definition strictly applies.

Such a supreme society can never be abolished in any country until the possessors of power agree to abandon its enjoyment, and cease to impose upon others the more thankless and laborious tasks. In all history, the rule has been that each class of a community appropriates the most congenial and lucrative functions that have not been assumed by the higher orders; and that the members of each, from the first to the last but one, feel a sense of superiority, sometimes mingled with contempt, over those who have accepted the roles which they themselves have been enabled to reject. The doctor's family, while chafing under the superciliousness of the landed proprietor, would probably repel with *hauteur* the social advances of the apothecary. Simson, the lady's maid, may feel indignant at the airs put on by Miss Higgins, the fashionable milliner's assistant; but Simson would turn

up her pretty nose at the idea of spending her Sunday out with Biddy, the scullery-maid. In short, the very pariahs of one race gratify, upon the pariahs of another, their irrepressible yearning to look down upon somebody. Society adds to its vitality by absorbing and converting into its most zealous champions the ablest and most prominent of its foes. The "ranker" in the army bitterly resents the familiarities of his former comrades. The civil upstart is the strictest observer of social etiquette so far as he has fathomed its mysteries.

Political earthquakes have suddenly obliterated old systems of exclusiveness, only to replace them by new systems of exclusiveness. A slow struggle, however, or a compromise between the two social states, more commonly precedes the total triumph of the new, and the latter is seldom completely triumphant before the seeds are sown of its change or dissolution. But, like the king, society is never dead. Resulting, as it does, from a combination of those possessing the elements of power, it will last while high descent, wealth, military skill, character, talent, personal beauty, refinement, and accomplishments, one or all, continue to confer influence or distinction.

The relative efficacy of the several factors of social eminence varies immensely in different countries and eras. At the zenith of Athenian glory, intellectual fame, as well as military services, constituted a valid claim to the companionship of the exclusive. A hundred years ago, gentle birth was in Christendom, as it still is among the Hindoos, almost the sole passport to aristocratic circles, and prowess in war almost the only therapeutic capable of neutralizing the taint of ignoble origin, and of conferring gentility upon one's descendants. For several generations past, the social power of wealth has been growing, arbitrary prejudices against certain callings have been dying out one by one, and the elastic band which encircles the *beau monde* has been unusually stretched by accessions from without. In every age, of course, superlative wealth, superlative talent, or even superlative politeness, has occasionally succeeded in forcing an entrance into the charmed circle. But to-day,

perhaps, society, in our own and most civilized nations, contains a fairer representation of all the constituents of power than at any previous period, the apparently undue admiration for money being nothing more than interested flattery. A more than average degree of ability combined with liveliness, a more than average amount of wealth combined with generosity, a more than average gentility combined with courtesy, or a more than average sycophancy combined with tact, generally serves to attract, at least, the exoteric hospitalities of the great. Such qualifications, to attain the same end, must be greater in number or in degree when they are marred by signal disadvantages. In an aspirant for social recognition, illiteracy provokes opposition from the well-informed, skepticism from the devout, low birth from the pretenders to illustrious descent; and every drawback of the kind demands additional merit as a counterpoise.

The tendency of modern society, as of modern politics, is to recognize the *status quo*. Certain positions, be they won by family interest, money, popularity, talent, or impudence, carry their occupants, if they are at all presentable, behind the screen of exclusiveness. In one city, speculations about a new-comer's family; in another, speculations about his attainments; in a third, speculations about his wealth, may be the most numerous; but, in all cities, nowadays, the position of a stranger is becoming more and more a subject of curiosity among those who are, and those who call themselves, genteel. And this is the case in republican America as much as in monarchical England, though the sets of conditions which constitute social standing are not exactly co-extensive in the two countries.

Much might be said in favor of the present inclination of society, which we have just commented upon. Offering to stamp with its recognition eminence in almost any thing but open vice, society now holds out strong, secondary inducements to commercial enterprise and professional skill, to public spirit, letters, and art. Nor does it ignore the claims of pedigree, which it acknowledges as liberally, if not so con-

sistently, as of old. It now considers that two generations of good grooming can convert the human cart-horse into a thoroughbred, while, on the other hand, even a single generation of obscure labor may completely debase the most patrician blood. Nevertheless, old families generally manage to preserve their prestige by propping, or by lopping their weaker scions according to their favorite tactics, or the exigencies of each case. Indeed, the frequent stifling of natural affection and severing of family ties are inevitable consequences of the prevailing veneration for position, for it is one of the laws of society that every member, who refuses to drop an outcast of the body collective, must do so under peril of outlawry to himself. Hence, a proud determination, neither to endanger the standing of affectionate friends nor to be snubbed by selfish relatives, forces many men to pursue a humble calling abroad rather than at home, and, after living discontentedly, to die almost forgotten by those for whom they have sacrificed themselves. The interested disowning of poor relations is not, we are glad to believe, so frequent among distinguished families in this country as it is in Great Britain, nor is it wholly indispensable among us in order to preserve a high social status to add to the humiliation of kinsmen already humbled by fortune.

A story is told which illustrates the heartlessness prevalent among the gentry of England toward those of their kindred who are obliged to labor in unrecognized employments, and suggests a novel means of vengeance for the snubbed. A reduced gentleman, who had been cut by half-a-dozen near relations, bearing his own historical name, resolved to "bleed" them consecutively. Selecting first, a village lying on the estate of an uncle, after whom he had been named, he leased a cobbler's shop therein, and placed over the door his baptismal names and patronymic, surmounted by the family arms. After he had executed a few orders by proxy, overtures were made by his uncle, from whom he finally obtained a considerable sum of money on the condition that he should retire from business in that neighborhood. With four of the other

five, similar tactics were rewarded by similar results. The fifth, a stern and combative personage, never made a proposal, but spent twice as much as any of the rest in paying the bribes and fines of youths who had stoned or otherwise maltreated the crest, name, or person of his shrewd and shameless relative. The latter, at length, found it advisable to take himself and his spoils to a colony, after having presented his unexpired lease to a genuine cobbler on the sole condition that he should retain the donor's name and arms over his door until the close of the year.

Of the remaining systems of exclusiveness, that based upon superior culture is the most logical, desirable, and utopian; while that resting upon superior riches is the most unreasonable, the most odious, and—perhaps in the future—the most probable. The idolatry of caste is preferable to the worship of the golden calf; for, although the transmission of hereditary traits is unusually defective in mankind, owing to the impracticability of any invariable rule of conjugal selection, yet courtesy, magnanimity, and the graces, which make the precedence of one class endurable to another, are more likely to exist in the descendant of a long ancestry, trained in the practice of these qualities, than in one whose fathers, if not himself, were reared amid the lowering influences of a cabin, or a tenement-house.

Moreover, the lower orders are disposed to be more restless under the supremacy of men who, within living memory, were their associates or inferiors, than they are under the ascendancy of gentlemen, in the etymological sense of the term, whom they have been educated to view as their superiors. Where money is the sole standard of distinction, whoever covets distinction is tempted to assume the appearance of being rich, and an emulation in extravagance is likely to ensue, threatening to ruin many of the wealthy themselves, to spoil the simplicity of the poor, and to pervert the taste of the whole community. A social timocracy seems like the bowing down of mind and breeding to matter. The vast power and the material comforts always conferred by money are reward

enough for its honest accumulators. That gifts so desirable should be permitted to those who possess riches by accident or by fraud, is an unscrutable ordinance of Providence. But that these enviable adjuncts of wealth should be supplemented by all classes scraping and kneeling, salaming and kowtowing to millionaires, making Brahmins of the rich, and paying to Croesus the tribute due to a Cæsar or a Cicero, is wholly repugnant to our sense of justice.

Society has a power commensurate with its vitality, and exercises that power with the strictness of a martinet. It sometimes tolerates verbal, but never practical rebuke, except in trivial things. In these it is ductile, in serious things conservative. In mere matters of fashion, in the shape of bonnets or the figures of a square dance, it is ready enough to follow its acknowledged leaders; but it revolts against even their dictation on grave questions of morality. Here its changes of opinion must be gradual and spontaneous. Daring chiefs may seduce it into such occasional fits of impropriety as marked the English Restoration or the French Regency, but the dethronement, if not the death, of its seducers will soon enable it to resume its old traditions with little or no modification. It suffers divergencies from its minor rules in degrees ascending from its last admitted to its oldest and most firmly established member. In this respect it follows the usage of a certain great European university whose authorities issue permits to seniors of good standing to enter the gates after midnight four times a week, if their excuses are satisfactory, but only grant the same privilege to juniors three times, to sophomores twice, and to freshmen once per week.

But almost every member of society who disregards its major edicts goes to the wall. Few women can venture to mingle a humbler with a prouder set in their "at homes" without peril to their position. Few men can with impunity open their houses to a social convict, or take back to their bosoms an erring and repentant daughter. As well cast one's self beneath the car of Juggernaut as stand in the path of Mrs. Grundy in her wrath! And yet her method of pun-

ishing those violations of her code, which, although unpardonable, are not at the same time breaches of the decalogue, is as suave as it is inexorable. She does not formally condemn the offenders; but she discontinues, singly and insensibly, her wonted acts of familiarity, and trusts, seldom in vain, to the culprits' own wounded pride to complete the rupture. And if any refractory member of her *monde* persists undisguisedly in harboring the outlaws, she simply repeats the same tactics against himself.

In those particulars in which it is pliable, society follows example more than precept. Even to sarcasm it is nearly impervious. Archilochus may have driven an individual to suicide by his invectives; but never a satirist, from Juvenal to Junius, has exploded the social sophistries, or suppressed the social wrongs of his day. Yet every little breeze weakens even a house that is founded on a rock.

That very great good results from this ever-existing and supreme organization, which calls itself society, is undeniable. Whether based more on rank, wealth, position, or education, it embraces, in perhaps every modern community, a larger share of culture than any lower section of the people. Its requirements, therefore, and its opinions in the domain of morals, are usually, and in the domain of æsthetics always, higher and truer than those of the inferior classes. The existence of society raises the standard of taste in its members, their imitators, and their attendants. Its example induces many ungallant men to practise politeness toward women, many profane men to bridle their profanity, many inhospitable men to consult the wishes of their guests more than their own, many dirty men to present the appearance of cleanliness, many soulless men to patronize art and learning. Society by its sanctions co-operates with parents, pastors, and legislators, in enforcing most of the virtues, and is a far more potent and proper instrument than the law in checking those vices which do not directly affect the person or property of any but their votaries. If it sternly set its face and shut its doors against gambling, quarreling, drunkenness, and sensuality, it would

do more to banish these abuses than all the statutes ever framed against play, drink, duelling, and fallen women, and that without outraging the ideas of liberty and the sense of justice of large minorities.

But, unhappily, society, in many instances, sets a very bad example to the public, and not only leaves undone those things which it ought to do, but does those things which it ought not to do. In the first place it is often unjust and inconsistent. Led by its female members, it is simply inexorable in the case of a single open lapse from virtue in any woman of lower rank than a princess:

“For gayer insects fluttering by  
Ne’er bend their wings o’er those that die;  
And lovelier things have pity shown  
To every failing but their own;  
And every grief a tear may claim  
Except a fallen sister’s shame.”

But the utter unfairness of society in this particular is even more remarkable than its unmercifulness. While it never re-admits the repentant female sinner, it seldom ejects the unrepentant male sinner. It shrinks loathingly from the former; it smiles at its maids and matrons dancing in the arms of the latter. And it receives the seducer the more readily if he has been so base as to desert his paramour, and abandon her to degradation or to death. Palliators of this conventional iniquity say that woman’s nature is purer, her training and surroundings less debasing, and therefore her unchastity more culpable than man’s, and deserving of severer chastisement. The former premise can never be verified without the resuscitation of Tiresias, and the latter is far from being universally true; nevertheless, the conclusion is possibly correct as a general rule. But, at all events, the difference in the punishments of the two sexes is grossly disproportionate to the difference in their guilt. And what caps the world’s injustice in this matter is that it makes but little discrimination in favor of the guiltless victims of force or fraud, and absolutely none in favor of those unhappy women, whose reasons are

perverted by the ingenious and persistent sophistry of fluent reprobates who have won their love.

Another flagrant instance of social unfairness is the habit of sending to Coventry the families of criminals. That the perpetration of a felony should raise a presumption against the parents and educators of the felon, is only natural, though this presumption should vanish before adequate proofs of careful training on their part or unusual viciousness on his. But that the sin of an individual should be visited upon his wholly innocent kindred can never be justified, and cannot even be palliated except upon the hypothesis that ancestral qualities are inherited to a much greater and wider extent than is commonly admitted. It is noteworthy that none are more ready than the opponents of this aristocratic tenet to throw over a convict's son or daughter, brother or sister; and that believers and disbelievers in caste are alike indefensible in ostracizing the wife or husband of a malefactor.

The minor inconsistencies of society are legion. It prohibits duelling, and gives the cold shoulder to the passive recipient of an insult. It condones as "fastness" in the higher and presumably more enlightened classes what it condemns as vice in the lower and presumably less enlightened classes. As Isabella observes in "Measure for Measure," it holds that

"The great may jest with saints: in them 'tis wit;  
But in the less it is foul profanation.  
That in the captain's but a choleric word  
Which in the soldier is flat blasphemy."

The shibboleths, which society arbitrarily establishes, it more arbitrarily departs from. It smiles at willful breaches of etiquette in a celebrity, and terms them eccentricities; it frowns at ignorant mistakes. It calls an act *prononcé* in a great lady which it would call masculine in an ordinary woman. It very properly discourages "talking shop" in company, and yet allows girls to discuss fashions or fancy work by the hour, and spin out their cabalistic phrases to the confusion of uninitiated hearers. It sneers at, but generally admits, uneducated success; it respects, but generally excludes,

its educators—discriminating more harshly in America against male, in England against female teachers. It makes more of a hypocrite, who parades in church the spoils taken from the ignorant and needy, than of the philanthropist who worships God at home. It accords the son, who promises to do his father's will and does it not, precedence over the other son who is disobedient in word but obedient in deed. It sanctions a moderate indulgence in wine, sport, smoking, cards, billiards, in those who are most liable to abuse those luxuries; it grudges them altogether to clergymen and teachers, whose training predisposes them to self-control.

The ductile and unstable are those who should utterly eschew things intrinsically harmless because they admit of intemperate use; but where should we look for examples of moderation rather than in our spiritual and intellectual guides? If so many things that are sinless in a layman become sinful in an ecclesiastic, men would be very imprudent to choose the clerical profession, and handicap themselves so heavily in the race for salvation.

Many shams and deceits are promoted by society. Sometimes it favors a particular sect, and offers a seductive premium to apostasy. Sometimes it pretends an accession of modesty, and engenders an affected prudery. It accustoms youth to insincere modes of address and signature, to unmeant "my dears," and untruthful "yours truly's." It permits its saints to invent false excuses and make their servants the mouth-pieces of their falsehoods. It sends empty carriages to funerals, and delivers visiting-cards by deputy. It consigns to the chaperonage of giddy, married women in their twenties its maidens whom it would not entrust to the care of staid spinsters in their thirties. It insists upon the mockery of mourning in those who have rejoiced at, or accelerated the deaths of their relatives. It teaches us "to hide the struggling pangs of conscious truth," to subordinate candor to politeness, to guess an acquaintance's age at years less than we know it to be, to applaud the execution of some musical bacchante, to admire the rhyming effusions in a school-girl's album,

to tell every young mother that hers is the paragon of babies.

To stem the torrent of conventional prejudices and deceits and not be overwhelmed would be impossible for the most distinguished personage; but the humblest can divert it in an infinitesimal degree, and a million individuals working separately toward the same end might wholly change its course. If every just and sensible member of society—and thousands who are unfair and silly in a mass are individually just and sensible—would only study to stop short of the majority in those directions where the majority is mean, cruel, unkind, or absurd, a quiet revolution might be effected. And it is to be observed that the most *outré* extravagances of any prevailing fashion, be it moral or material—Grecian bend, Roman fall, or Alexander limp, euphuism or slang, prudery or shamelessness—may be ridiculed with effect. For social extremists are always a minority, and invective or derision pointed at a few, are commonly relished by the ungalled multitude. And that satire should be unusually effective, which is directed against extremists in fashionable faults or follies, because these are generally pushed to their *ultima Thule* by those who stand almost outside the pale of society. These, in their anxious efforts to prop up their precarious position, always affect and often overdo the newest styles in dress, comportment, and opinion; and their discomfitures are keenly enjoyed in the circle whose reluctant toleration they have just won or purchased.

We need hardly say that every successful movement toward the reformation of society must originate within, and that sarcasm or derision having the same end should either be anonymous, or, better still, emanate from persons whose high and guarded *status* secures them from reprisals. A good shot by aiming at the foremost may check the advance or possibly compel the retreat of a vast crowd—but he himself must be invisible or clad in impenetrable mail.

- ART. III.—1. *La Bibliotheke d'Alexandrie.* BONAMY.  
Paris.
2. *Histoire de l'école d'Alexandrie.* Paris.
3. *Das Alexandrinische Museum.* (*The Alexandrian Museum.*) KLÜPFEL.
4. *Die Alexandrin Bibliotheken.* (*The Alexandrian Libraries.*)

No single element of civilization has been more far-reaching in its effects than Greek literature; and even at this day, though consisting mostly of fragments, it is more comprehensive than any other literature of antiquity. The well-balanced mind of the ancient Greeks; their delicate perception of the beautiful; the melodious language in which they wrote; combined with their constant striving after excellence; have given their literary productions a pre-eminence which later generations may approach, but can hardly expect to attain.

Greek literature is likewise remarkable as an original product. So far as we know, it came into being, developed, and flourished among the same people that carried it to the highest perfection. Where a foreign element is discoverable, it has been so transformed and embellished as to be scarcely less Greek than what is indisputably autochthonic. "We look in vain to Egypt, Syria, or India, for more than a few seeds that burst into such marvellous life on the soil of Attica."

The praise of excellence so justly belonging to the earlier Greek literature is not applicable to the centuries immediately preceding the Christian era, and originality was no less the distinguishing feature of the one than imitation was of the other. The early writers followed only their innate sense of beauty; but to such an extent had originality, both in form and thought, been lost sight of, although appreciation of what was excellent was not wanting, that the later ones, with their decayed powers, could only pattern after their gifted ancestors. Yet, we should by no means underestimate this epigenic litera-

ture. Its authors collected, amplified, commented, thus making their works as important to us as the originals. It is the transmitting medium of the earliest times; and, without this connecting link, the writings of the creators of Greek literature would be but little understood.

The central object and cynosure of this age, so active in collecting and commenting, an institution that existed some seven hundred years, five hundred and fifty of these in a more or less flourishing condition, was the Museum at Alexandria, in Egypt. It was an outgrowth of the spirit then prevalent in literature, but did much, also, to give that spirit its general direction. It was a natural product of its time, because its object was to collect, arrange, and comment upon the writings of the ancients. Its influence was directive, because here were gathered the most learned and talented men; and, intimately connected with the court, the literary works of its members had the approval not only of talent and learning, but the sanction of royalty itself. This Museum, in course of time, gained such celebrity as to become a model for institutions having in view the encouragement of letters.\*

While no subject connected with the decline of Greek literature has been more diligently examined, none certainly furnishes more scanty materials for its history than this museum. Its very celebrity is a chief cause of this. Many of the notices we have are merely references to it as something with which every reader is familiar. Just as few travellers of to-day to Italy or Germany describe minutely objects so well known and so often written about as St. Peter's or the Cathedral at Cologne. What depreciates further the scanty materials still remaining is the extreme unreliableness of the later Greek historians. Pliny, with a good deal of truth, says of the Greeks of his time: "It is astonishing to what lengths their credulity proceeds; and lies, no matter how barefaced, are vouched for by some of them."

As matters kept growing worse rather than otherwise, they can, in general, be trusted only when they copy from

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\* *Hist. de l'école d'Alex.*, p. 84.

older works. Our information must be obtained chiefly from occasional remarks made by authors while writing upon other topics. Several works mentioned as treating specially of the library and museum perished with the former. The Greeks, after losing their liberty, began gradually to lose their literary zeal and judgment. Owing to their own vices and the oppression of their conquerors they kept continually degenerating, and even their language threatened to become extinct—did, in fact, become so corrupt that ultimately the Greek of Athens bore little resemblance to that of Plato and Aristophanes. Guided, however, by a few well-authenticated facts, taken chiefly from the works of geographers and travellers, we can form a tolerably correct idea of the great Academy of Sciences at Alexandria.

Doubtless, the object of the illustrious pupil of Aristotle was not only to spread his conquests, but also Greek culture and civilization. The numerous colonies he planted, the eighteen cities he founded naming them after himself, are evidence of this design. Of these, Alexandria, in Egypt, became by far the greatest. When Alexander's glance fell upon the little village of Rhacotis, he seems to have felt that here was the place to found a city which, being suitable for a central point of intercourse between Greece and Egypt, would more than any other be worthy of his name. The subsequent history of the city has been an enduring monument to the wisdom of its founder; and, until the discovery of the passage by water to India, no human or superhuman calamities were able permanently to injure its prosperity. Alexander himself formed a plan for the new city, then gave the undertaking into the hands of Dinocrates, who carried it out in a most satisfactory manner. True, the monarch had given no countenance to the proposal of this architect to cut Mount Athos into a statue of him, yet he saw that the author of it was no ordinary man, and wisely determined to employ him to better purpose. In the first year of the one hundred and twelfth olympiad, the new city was begun, and thenceforth rapidly carried forward.

Alexandria was situated a short distance west of the canopic mouth of the Nile, between Lake Mareotis and the harbor formed by the island of Pharos. Its circumference was nearly a hundred stadia; it had broad streets, and was regularly laid out. Two streets, more than a hundred feet wide, intersected each other, cutting the city into four quarters. These streets had columns on both sides, which not only added to the beauty of the city, but also protected pedestrians from the heat of the sun. The houses, although having thin walls, were massive and high; the ceilings arched; the roofs flat for walking upon, and often of highly-ornamented mosaic. Under them were cisterns, in which the water of the Nile, brought thither in pipes, was filtered and made a pure and wholesome drink. Four gates afforded entrance to the city. The two harbors between it and the island of Pharos were almost always filled with ships from far and near. Here were to be found commodities from the East and the West; here was the ever-flowing source of Alexandria's wealth. These two harbors were really but one, divided in the middle by a dam, or causeway, having a bridge at each end. One of them, called the Asiatic, or Great Haven, was of such depth that the largest ships could sail up to its wharves. On the eastern end of an island of the same name stood the celebrated Pharos light-house, which is said to have given light to the distance of three hundred stadia, nearly thirty-five miles, thus furnishing a safe entrance to the harbor even in the night. The cost of this structure was a little less than one and a half million dollars. The other, called the African, or Haven of Fortunate Return, was connected with Lake Mareotis by means of a canal running through the city.

One of the most remarkable edifices in Alexandria, and one we shall have occasion to mention hereafter, was the Serapion, a temple of Serapis. The worship of this god, the patron of sailors, was introduced from Sinope by Ptolemy I., doubtless not without a special object. The temple stood in the quarter Rhacotis, near the Haven of Fortunate Return; and art had exhausted her resources to make it one of the

most splendid on the face of the globe. It was erected on the summit of an artificial mount raised one hundred steps above the adjacent parts of the city. The sacred buildings were surrounded by a quadrangular portico, the interior was firmly supported by arches, while the stately halls contained the triumphs of art and the treasures of ancient learning. Within was the figure of the god, composed of a great number of iron plates artificially joined together, and so large that it touched the walls of the sanctuary. This temple remained after repeated edicts had been promulgated by the emperor Theodosius forbidding the pagan worship and ordering the destruction of its temples; for even some of the Christians feared that to abolish the ancient rites of this god was to stop the overflow of the Nile, and destroy the fertility of Egypt. The Bruchion, or Pyruchion,\* probably so-called from its grain warehouses, formed the most easterly part of the city. This was strongly fortified, and separated from the rest of the city by a high wall. Alexander directed Dinocrates to erect in it a palace suitable to the greatness and importance of the city; and, when the Ptolemies had taken up their residence here, one palace after another was erected, so that it could, with propriety, be called the Quarter of Palaces.

The inhabitants of Alexandria were chiefly Greeks, Egyptians, Jews, and mercenaries. The last formed no inconsiderable part of the population, for Ptolemy II. kept an army of two hundred thousand infantry and forty thousand cavalry in his service, many of which were always in the city. Diodorus gives the number of citizens, as he assures us, upon good authority, at three hundred thousand. Counting the large number of slaves and transient inhabitants, the entire population cannot have been far short of a million. Many causes combined to make a stay here both agreeable and profitable. The wealth of its citizens, arising from the numerous opportunities for making money, and the trade with all parts of the world, brought hither not only all the necessities of life, but also its luxuries. Cool north winds blew through its

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\* *πυρός*, *wheat*; but this derivation is by no means certain.

streets; the serenest sky was almost always overhead; and, though no snow ever fell, yet the heat was seldom oppressive. Achilles Tatius says: "As I entered the gate, which is called the Gate of the Sun, I was overwhelmed with astonishment at the sight of the beautiful city. Never have my eyes beheld such an enchanting spectacle. From the Gate of the Sun, a row of colonnades extended in a straight line to the Gate of the Moon. In the midst of it, I beheld the market-place, where a countless number of streets intersect, and upon these a ceaseless going to and fro, as if all the city were upon a journey. Going a few stadia, I arrived at Alexander's Place, which seemed to be a new city separate from the first. Gazing on every side, I was unable to feast my eyes sufficiently upon the scenes before me. Two new and surprising facts evident here were, to my mind, incomprehensible. The first was that so large a city could be so beautiful throughout; the second, that the size of it and the multitude of its inhabitants could have the proper relation to each other. Now, the city seemed to be too extensive to be entirely inhabited; now, the number of people so great that they could not possibly all dwell in the city."\*

But Alexandria was not only rich and powerful; it was equally celebrated as a seat of learning. The two men who contributed most to its greatness were Ptolemy I. and Demetrios Phalerens. The former was the son of Philip of Macedon and Arsinoë, though, at the time of his birth, she was the wife of Lagos, and he is usually called the son of this general. He was a favorite with the army, and with Alexander during his life. He chose Egypt as his share of the spoil, and augmented his territory by conquest. For his services in their behalf, he obtained, 306 B. C., from the grateful Rhodians, whom he had assisted, the title of Soter. He was an ardent lover of learning, and a patron of letters and learned men to an extent that has seldom been equalled by any other monarch. He induced many scholars to reside in his capital, and sent liberal presents to others who were un-

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\* *Vide Klüpfel, p. 180, et seq.*

willing to accept his invitations, with whom he also kept up a long-continued correspondence upon literary subjects. Among the learned men connected with his court were the poets, Archelaus, Philétas, and Rhinton; the historian, Lykus; the philosophers, Theodorus, Diodorus, Kronus, and Straton; the physician, Herophilus; the mathematician, Euclid; the architect, Dexiphanes, and his son, Sostratus. The services of Demetrius were, however, above all, important to Ptolemy. He was talented, learned, and a thorough statesman. When at the head of affairs in Athens, he seemed actuated solely by the unselfish desire of benefiting his countrymen. He increased the revenues, beautified the city, and, by his magnanimity, gained such esteem among his countrymen that, in one year, no less than three hundred and sixty statues were erected to do him honor. But he experienced the ingratitude of republics—was banished, condemned to death, the statues of him were destroyed, and his laws rescinded. From Athens he fled to Thebes; not feeling safe here, he sought refuge with Ptolemy, by whom he was welcomed heartily. His great learning and experience in government soon gained him the confidence of the king, who consulted him on all matters of importance. It was this refugee that became instrumental in founding the imperial institutes which made Alexandria for centuries the head-quarters of science and learning. Already the monarch's, he made it also the muses' seat. A fertile writer himself, he induced Ptolemy to collect books, especially upon political economy. During the lifetime of his patron he continued in the service of literature. But, in the year 286 B. C., persuaded by Berenice, his second wife, Ptolemy made her son joint regent, and proclaimed him his successor. Demetrios opposed this, and pleaded the cause of the first wife's children. Philadelphus, the favored son, concealed his hatred during his father's life-time; but, after his death, ordered Demetrios to be banished. He died in exile 283 years B. C.

In order to understand the object of this Museum and Library, it will be necessary to take a glance at the times in

which they were founded. After Greece had lost her independence, the arts and sciences ceased to be cultivated by the people, and necessarily lost their former character. Literature became, so to speak, the property of the rich and powerful. After the example of Alexander's munificence, princes especially honored themselves by the patronage of letters, and none more so than the first Ptolemies. Both from inclination and from a desire of uniting the various classes and nationalities of their subjects by some bond of union, they gave especial encouragement to the literature of Greece. Having surrounded themselves with learned Greeks, it was natural that they should endeavor to devise means for employing them to the best advantage. Thus, the plan of the Museum was gradually extended until its members were not only relieved from all care for the necessities of life, but were furnished with all possible aids in pursuing their investigations. One of the first things to be done was to make the writings of the ancients easily accessible, and to this end the library was founded. Besides advancing the cause of letters, the institute furnished agreeable entertainment for literary monarchs, and the latter were continually urged to greater efforts by their love of fame and splendor.

The date of its foundation is variously given by the church historians, but the older and more credible testimony of Plutarch and Strabo furnishes the following data. The Phalerian came to Alexandria about 305 B. C. At this time, however, Ptolemy was so much occupied with establishing himself upon his throne that he could have time for little else. After the battle of Ipsos he became the undisputed possessor of all his conquered provinces, and could attend to the arts of peace. As Zenodotos, who flourished 280 B. C., was librarian in the life-time of the first Ptolemy, we are safe in concluding that the Library must have been founded between 300 and 290. To fix the time more definitely seems impossible.

Ptolemy now did all in his power to collect books. He appropriated great sums of money for the purchase of manuscripts, and erected a large building for their reception.

Calligraphists and correctors were constantly employed in multiplying and revising them. Other persons were engaged in preparing the rollers in which they were to be wrapped, in selecting materials, and the like. So diligently had Ptolemy pursued the work of enlarging his library, that, at the time of his death, 283 B. C., he had collected fifty thousand volumes. This number is not at all incredible, when we consider that each part or book of each work constituted a volume.

Several of his successors inherited his zeal for letters. They increased the volumes and value of the library by the addition of new works and by the purchase of the oldest and best manuscripts of the ancient writers. The learned were stimulated to greater literary productiveness by "Contests of the Muses and Apollo," in which the victors were profusely rewarded.\* In order to increase the number of old manuscripts, all Alexandrian seamen were authorized to buy wherever they could, and deliver them to the library, where a high price was paid for them. Pawns were given for the privilege of copying very valuable ones, the pawns forfeited, and copies, instead of the originals, returned to the owners.† Ptolemy is said to have surrendered a pawn of fifteen talents deposited with the Athenians for permission to take away and copy the best manuscript of each of their three great poets. The extraordinary demand for manuscripts, and the high prices paid, soon brought into market many spurious ones bearing the names of distinguished men. To meet this difficulty, men called *chorizonts* were employed to examine them, and to select only the genuine for the use of the library. The more valuable ones were placed in special receptacles, and preserved with the greatest care. In their zeal for collecting books, the Ptolemies established large paper factories; and, out of rivalry with the kings of Pergamus, forbade the exportation of papyrus. This had, therefore, to be replaced by some other material; and, because of the consequent extensive manufac-

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\* *Hist. Critique de l'éclectisme*, vol. i., p. 240.

† *Aul. Gell.*, vi., 17.

ture at Pergamus of an article from the skins of sheep and asses, this city had the honor of giving a name to our well-known *parchment*. Ships, known to have on board rare and valuable manuscripts, were plundered by the Alexandrian seamen, when possession could not be got by fair means. In short, every means, honorable or otherwise, within the resources of powerful monarchs, contributed to increase the libraries of which we write.

To arrange and properly manage so large an establishment required both learning and judgment. We accordingly find among the Alexandrian librarians some of the most important men of the second period of Greek literature. Of these, Zenodotus of Ephesus, Aristophanes of Byzantium, Aristonimus of Alexandria, and, perhaps, Aristarchus, the celebrated critic, are most worthy of mention. According to Isidorus, the number of rolls in the library, in the time of Philadelphus, was seventy thousand. Owing to their rapid increase, a second library was commenced in the Serapion; and not much later we find the statement that the number of rolls in the Serapion was forty-two thousand eight hundred; in the palace four hundred and ninety thousand. The number of rolls in the Pyruchion (or Bruchion,\* a term not well understood) in the time of Caesar was seven hundred thousand. These figures, given by different authors, may be considered very nearly correct, though we should remember that rolls, and not separate works, are meant. The ratio of these numbers to one another is reasonable: Five hundred and thirty-two thousand, the number in both libraries, could easily increase to seven hundred thousand in two hundred years. We would, in fact, expect the increase to be greater. But the zeal of the Ptolemies in collecting books had abated. When we remember the exertions of the earlier sovereigns of this dynasty, the great number of works produced in the Museum itself, and the systematic multiplication of copies, we need not be surprised at the size of this library. It

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\* Both forms of the word are of about equal authority.

was the largest in the world, was the pride of powerful kings, and supported out of their treasuries. Not much after this time, the grammarian Epaphroditus had a library of thirty thousand volumes, and, in the collection of a private man, one would not expect to find many duplicates.

As this library was so intimately connected with the royal family, its prosperity depended almost entirely upon the character of the reigning sovereign, and many of the Ptolemies were not the men to patronize letters. They favored nothing but their own lusts, and, instead of caring for the interests of their subjects, pursued an opposite course, often actually injuring them.

After the death of Ptolemy Auletes, 51 B. C., there were two contestants for the vacant throne—Dionysius Ptolemy and his sister Cleopatra. As a result of their quarrel, the latter was obliged to flee. She made her escape into Syria, where she collected an army and was preparing to march against her brother. During this state of affairs in Egypt, the struggle between Cæsar and Pompey had ended on the field of Pharsalia with the death of the latter. Cæsar repaired to Alexandria, summoned the two claimants to the crown of Egypt to appear before him, and, in the name of the Roman people, undertook to decide to whom the sceptre rightfully belonged. During the first part of his stay he remained, apparently, inactive; but soon the arts and beauty of Cleopatra gained such power over him that, from being a judge, he became a vindicator and protector. The opposite party took up arms. The scene of the skirmishes that ensued was mostly the Bruchion. Achilles, a general in the interest of Ptolemy, approached the city with a large army. Cæsar hastily ordered to himself some legions out of Syria, seized the palace, and fortified it. Many skirmishes took place between October, 48 and March, 47 B. C., and many buildings were laid in ashes. The Romans, finding it impossible to bring into safety the fleet lying in the harbor, set it on fire. The flames spread to the buildings in the immediate vicinity, and, among others, to those containing the great library, which

was thus consumed. This destruction of some four hundred thousand volumes occasioned a loss to literature that is, perhaps, unparalleled, and one the more to be regretted, as it included nearly all the works that treated of the literary institutions of Alexandria. This loss to literature is greatly to be regretted; but the melancholy consolation remains to us that, if this library had continued a few centuries longer, it could not have survived through the dark ages that succeeded the downfall of the Western Empire. The intellectual gloom of nearly a thousand years is penetrated by only an occasional ray. Almost every work of antiquity that has come down to us has done so from the neglect, rather than the care, of these times. The persistent spirit of willful destruction has done far greater harm than accidents.

Doubtless, after the fire in the Bruchion, there were enough books in the world to make our knowledge of antiquity very complete—it is even doubtful whether the loss, in a literary point of view, would have been a very serious one. So late as the tenth century, Photius, of Constantinople, read a large number of valuable books that have since disappeared. Let us turn aside for a moment to look at his list. The History of Diodorus Siculus, in forty books, was then complete; we have now, for the most part, only fragments of books. The same is true of Polybius, of Ktesias's Persian History, in twenty books, and of his Notices of India, now remaining only in fragments. There were also entire the Roman History of Dionysius of Halicarnassus, in twenty books, of which we have now only eleven; the historical works of Arrian, the Parthian History of Arrian, as well as his Bithynian History and his work on Alexander—all of which have since mostly perished. Of the History of Theopompus, in fifty-eight books, fifty-three were then remaining. Of Agathangelides's work on Asia, in ten books, his work on Europe, in forty books, of that on the Red Sea, of Memnon's History of the Greek colony, Heraklea on the Black Sea, all entire in the time of Photius, we have only fragments. Of the sixty-five orations ascribed by this author to Demosthenes, we have but

forty-two; and, since his time, one hundred and ninety-nine of the two hundred and thirty-three genuine orations of Lysias, and fifty out of the sixty of Isæus have disappeared. But one or two of the fifty-two genuine orations of Hyperides and but three out of the sixty-four of Dinarchus remain. Of the fifteen of Lykurgus, but one is left, while of the thirty-five orations of Antiphon, sixteen are still in existence. A few centuries later, Petrarch was not able to find a copy of Homer in all Italy.\*

It is more than probable that, had it not been for the extraordinary activity of the Italian humanitarians of the fourteenth century in collecting Greek manuscripts, and their interest in Greek civilization generally, our knowledge of antiquity from this source would have been exceedingly scanty. The Crusaders and the Turks, who in turn sacked and burned Constantinople, the only city where Greek letters were still cultivated, did all in their power to break down the bridge that connects the times of ancient Greece with our own. Yet, in this case, as in so many others, we see that this literature possesses marvellous vitality; for, of some sixteen hundred works belonging to the so-called classical period, that have wholly or in part come down to us, nearly three-fourths are Greek.

We return to affairs in Alexandria. Cleopatra reigned three years, in conjunction with her brother, and then, having poisoned him, became sole ruler. Extraordinary in talents, no less than in beauty, this woman proved a more liberal patron of letters than many of her predecessors. Endowed and educated as she had been, she could hardly do otherwise than attend to the literary interests of her capital. She prevailed upon Anthony to give her the library of Attalus III., of Pergamus, whose kingdom since 133 B. C. had been a Roman province, and thus increased the number of books still remaining in Alexandria by some two hundred thousand volumes.

On the second of September, 31 B. C., the celebrated

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\* Heeren, *Geschichte des stud. der Class.*

battle of Actium took place, in consequence of which Egypt came into the power of the Romans. In the following year occurred the death of Cleopatra, and with her the dynasty of the Ptolemies became extinct, after a reign of 293 years. Great as were the faults and vices of some members, the reign of this dynasty, taken as a whole, must be regarded as exceedingly favorable for the preservation and dissemination of Greek literature. The important changes which the emperor Augustus introduced into the government were beneficial to Alexandria, for quiet was thereby restored and maintained. The learned men who began again to assemble in this city were enabled to pursue their studies and investigations unmolested by the whims of a despotic sovereign. The sums that had been set apart for literary purposes, but which had, under the later monarchs, been much diminished, or used for other objects, were renewed by the Romans. New regulations were likewise framed for the members of the museum, and some changes made in the libraries. The library from Pergamus had, meantime, been transported to Alexandria, and set up in a new temple, the Sabastian, built about this time in honor of Augustus. The new temple is believed to have been erected on the site of the great fire, and until it was finished the books were probably stored in the royal palace.

It is well known that the Romans regarded literature very differently from the Greeks—its pursuits were incompatible with their thoroughly practical nature and their taste for politics. As the library was from this time under Roman supervision, there is, in the absence of evidence on this point, no reason for believing that it was much increased, and it almost disappears from history until the reign of Caracalla.

Enraged at the Alexandrians for ridiculing him, this fiend introduced soldiers into their city, ordered them to break into houses by night, and murder the inmates without distinction of rank or sex. This cruel deed he ordered to be repeated by daylight, that he might view the bloody spectacle from the top of the temple of Serapis. The soldiers, at length, tired of their butchery, ceased, whereupon he wrote to the

Roman senate that he had punished the Alexandrians, but considered it unnecessary to give the rank or number of the killed, as they were all worthy of death. He took away the privileges the emperor Hadrian had granted the citizens of Alexandria; and, by means of walls which he caused to be erected, prevented all communication between the different quarters of the city. The members of the Museum fared no better than other people. Under pretext that Aristotle had been concerned in the death of Alexander, his (Caracalla's) prototype, he, it is reported, ordered the writings of this philosopher to be burned.\* It is certain that he took away the privileges of the Peripatetics in the museum, was on the point of burning the library, and ended by closing the whole institution.

Caracalla had, however, vented his rage upon men only. The Serapion and the buildings in the Bruchion, with their libraries, still remained. After the emperor's death, the Roman senate decreed his edicts null and void; and, as soon as this became known, the banished members of the museum, as well as the merchants of the city, again returned. A flourishing trade sprang up in consequence, and the inhabitants were soon able to repair their losses. Alexandria was again prosperous, but the Roman empire was rapidly declining. The sad, but expressive history of the literary institutions of the times upon which we are now entering is told by a silence almost profound. Most of the succeeding emperors were of obscure origin—men who had obtained the supreme power by the sword, and who were compelled to maintain it in the same manner. Born and reared amid scenes of strife, and almost of necessity esteeming prowess above every thing else, they were in no kind of sympathy with the quiet and peaceful pursuit of letters. Adventurers from the Provinces usurped the places of Roman statesmen; and these, instead of taking an interest in public affairs, gave themselves up to debauchery and sensual gratification.

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\* *Ant. Gel.*, vi. 16.

Ammianus Marcellinus, in describing the condition of literature among the Romans about this time, says: "Under such circumstances, even such houses as were formerly conspicuous in the cause of science, are now filled to overflowing with the games of lazy wantonness, and resound with songs and noisy music. Instead of keeping a philosopher, men keep a singer; instead of an orator, a performer of tricks. Libraries, like sepulchres, are forever closed. In their place, men provide water-organs, lyres of enormous size, flutes, and all possible kinds of stage-players. To such lengths has folly gone, that, not long ago, when a famine was feared, all strangers were ordered to leave the city. The lovers of science, though their number was small, were at once ruthlessly driven out; while the attendants of public players, and those who, for the nonce, reported themselves as such, besides three thousand dancers, with their musicians, and as many dancing-masters, remained undisturbed."

These things, written of Rome, are but little less true of Alexandria. The great cities of the empire were almost as corrupt as its capital. Even in Rome, a few, but more in Alexandria, remained uncontaminated by the vices of the age—men who loved and devoted themselves to literature. But, where the entire frame-work of society is in process of decay, letters do not make an exception. The quarrels of unprincipled governors with the citizens, that generally ended to the advantage of the former, brought upon the latter untold misfortunes. From the year 246, Alexandria was, for a long time, the constant scene of strife and civil war. These, together with a pestilence of fifteen years' duration, carried off a large part of its inhabitants, and caused the destruction of many buildings, from which those in the Bruchion were not exempt. The Emperor Aurelian put an end to these wars. Firmus, a giant in person, a Cræsus in wealth, who had proclaimed himself emperor, and taken possession of Alexandria, was defeated, taken captive, and put to death. In the interval of peace that followed, literature began to revive in the Museum. The muses seemed loath to abandon the place

where they had so long been honored. The library was still a cynosure toward which the learned directed their steps as soon as there was safety in doing so. We know that, at the end of the fourth century, the study of music, mathematics, astronomy, and particularly of the healing art, was here pursued with zeal and success.

But a new element of power in the world began to make itself felt in Alexandria. This was Christianity. The Apostle Mark is believed to have been the first who preached the gospel here, where he also founded a church, and probably a school. Here, as in many other places, the Christian community continued to increase, in spite of opposition, and, in time, numbered among its members some who were learned and influential. For the purpose of opposing more successfully the heathen members of the museum, a theological school for the youth of Alexandria was founded, at the head of which was placed Anatolius, Bishop of Laodicea. The origin of the Alexandrian catechetical school is of still earlier date than the last mentioned. It was, in a great measure, the opposition of Christianity and Paganism that caused the destruction of the library of which we write. Then, as has been too often the case since, one party could see nothing good or true in what their opponents said and did.

After Constantine had made Byzantium the capital of his empire, he wished also to make it the literary centre of the world; and his influence operated, at least indirectly, against Alexandria. Its museum was likewise placed under the supervision of the clergy; and the hate of the triumphant Christians became the more bitter against the learned assembled here. Most of them left the city in consequence, and sought safety elsewhere. The emperor Julian subjected the Christians to some restrictions, and tried to induce the learned Pagans to return. He succeeded in partly reviving Alexandria's now rapidly sinking institutions; but his reign was too short to produce lasting results. After his death, the spirit of opposition between Christians and pagans became more bitter than

ever. The temple of Serapis was the rallying-place of the latter. The general belief that the annual overflow of the Nile, and, with it, the prosperity of Egypt, depended upon the favor of this god, restrained, for a while, the Christians from attacking his temple; nor did the pagans neglect to make the most of this belief to their own advantage. Several fanatics appeared upon the scene, who endeavored to maintain the worship of idols, among whom were most conspicuous two men named Antonius and Olympus. The former was a student of mystical philosophy, and vindicated, with great zeal, the worship of the heathen gods. He was constantly attended by a crowd of young men, drawn to him by his character and eloquence. The latter is represented by Suidas as a man of wonderful acquirements, noble nature, and incredible eloquence. On this account he was chosen, by the adherents of the old religion in Alexandria, as teacher of divinity in the temple of Serapis. Great numbers flocked to him, eager to be instructed in the religious rites and mysteries of their ancestors, and there were not wanting those who attributed the misfortunes of the times to the neglect of the worship of the gods.

While these things were going on in Alexandria, several imperial edicts were proclaimed throughout the empire, ordering the destruction of heathen temples. Theophilus was at this time archbishop of the city. He is characterized as "the perpetual enemy of peace and virtue; a bold, bad man, whose hands were alternately polluted with gold and blood." With the assistance of the imperial governor and some soldiers, he made an attack on the pagans who, under the leadership of Olympus, had provisioned and fortified themselves in the temple of Serapis. A formal siege was begun, and unheard of cruelties, in which the pagans, perhaps, outdid their opponents, were perpetrated by both parties. In the year 389 an armistice was entered into for the purpose of awaiting the imperial mandate which was to decide the fate of the temple. When the rescript for the destruction of the idols in Alexandria was received, the pagans, to avoid the fury of the Chris-

tians, hastily took flight. The latter, with loud shouts of exultation, proceeded anew to the work of destruction. The god was broken in pieces; the works of art destroyed; the building sacked; and only the strength of its walls bade defiance to the zeal of the besiegers. The building was afterward repaired and converted into a monastery. We shall probably never know what works of art perished here; but we do know that the splendid library of three hundred thousand volumes was scattered or destroyed. This was the end of the library brought to Alexandria from Pergamus, together with its increase since transportation. Some thirty years later the presbyter Orosius relates that he saw the empty shelves of the Serapion, on which rolls had formerly lain, referring doubtless to what was now the monastery above alluded to.

The tragic death of Hypatia is an episode in the literary history of Alexandria that must not be omitted from the few scattered notices we possess of its library and museum. This event, the memory of which genius has rendered imperishable in painting and story, gives us an insight into one of the most unfortunate periods of the world's history, and shows us what a precarious lease of life the literature of antiquity had at the hands of those who were day by day rising into greater power.

Hypatia was the daughter of the last mentioned member of the Alexandrian museum, the celebrated philosopher and mathematician, Theon, and one of the most accomplished women known to history. Her father's only child, and early manifesting a deep interest in philosophical and mathematical studies, he instructed her with the greatest care. During her stay at Athens, still a noted seat of Greek culture, she became a convert to the third Neo-Platonic school, which was then striving to unite the dogmas of Plato and Aristotle. Upon her return to Alexandria, she became a teacher, where her eloquence and wisdom, her youthful beauty and modesty awakened such enthusiasm that her lecture-room could scarcely contain her eager disciples, while the first families of the city sought her friendship. We may learn something of

her character from the letters of Synesius, Bishop of Ptolemais. This man, who, in 403, embraced Christianity, speaks of her in terms of the highest regard, sends her his letters, and desires their publication to depend upon her approval. At one time he writes :

"My heart mourns the absence of children and friends; but something more is wanting; it is the presence of your divine spirit, which more than any thing else could alleviate the bitterness of my fortunes."

At another time he thus gives vent to his grief:\*

"Oh, my mother, my sister, my teacher, my benefactor! my soul is very sad; the recollection of the children I have lost is killing me!"

And further :

"When I have news of you, and learn, as I hope, that you are more fortunate than myself, I am at least only half unhappy."

Philosophy, and particularly the Neo-Platonic, with its mystical submersion into Deity, was odious to the Christians; it was the mightiest opponent of the new religion. Hypatia, in so great favor with the learned and influential of Alexandria, was a thorn in the flesh of the zealous and fiery Bishop Cyril, who happened to be just then at enmity with Orestes, the governor of the city. About this time, a certain Hierax, a noted teacher among the Christians, was murdered, and the murderer could not be found. Gradually, a report spread through the city that the female philosopher, by her secret influence, prevented a reconciliation between the governor and the bishop, and that she was probably the cause of her opponent's death, by means of bribed bandits. One day during Lent, a crowd of fanatics, under the lead of a certain reader named Peter, collected around her dwelling. She was not at home, but soon appeared, sitting in her chariot. The crowd, who had murder in their hearts, ran to meet her, forced her to descend, dragged her into a church, stoned, and literally tore her in pieces. Her quivering limbs were trailed

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\* Synesius, *Letters to Hypatia*, p. 170. *et. seq.*

through the streets by these monsters, and finally thrown into the fire. No one, even among the Christians, doubted Cyril's connivance at the deed. The investigation of the riot was discontinued by the timely appearance of gifts. As to the manner of her death, Suidas says this was the custom of the street rabble of Alexandria, which also tore in pieces the bishops Georgius and Proterius. This event took place about the year 415.

It would seem, from the testimony we have adduced, that all traces of the libraries of Alexandria had disappeared at the period to which we have now come. But the well-known story of Amru, the Arab governor, deserves some notice and investigation. Theon was the last member of the museum, and an historian, writing about this time, designates the Bruchion as "deserted." But he could have had reference only to human beings; and the temple may have still been a depository of books. Alexandria had still a reputation for science, and must have contained a library, or libraries of considerable size. It is not improbable that some works were saved from the fires that consumed the great libraries. Evidence for the existence of many books is the presence of a number of copyists who exercised their trade, as also the fact that several physicians of the fifth and sixth centuries owed their fame and skill to the education received in Alexandria. The writings of John, surnamed Philoponus, many of which have come down to us, show that their author must have consulted a great many books. Finally, we have the testimony of Suidas that Severus, a teacher of eloquence, went from Rome to Alexandria about 470, where, surrounded with books, the contents of which embraced all manner of subjects, he passed his life in the quiet studies of the philosopher.

Since, then, we have good reasons for believing that a library of considerable extent, though, perhaps, largely of Christian literature, still existed in Alexandria, we are better able to consider the narration of Abulpharaj, an Arab historian of the thirteenth century. After speaking of John, the grammarian,

as an Alexandrian belonging to the sect of Jacobite Christians, and as living at the time Amru took his native city, he proceeds to say "that he went to the Arab general, who treated him with great respect, because he had already heard of his extensive learning. Amru also listened to his philosophical discourses, to which the Arabs were strangers, and was overwhelmed with surprise and astonishment. Himself a man of judgment, quick at drawing conclusions, possessed of keen, perceptive powers, Amru was naturally drawn toward him, and kept him constantly in his presence. One day John said to him: 'Thou hast examined all the storehouses in Alexandria, and hast sealed the contents of the same. As to these things, since they can be of no benefit to me, I will say nothing; but that of which thou can'st make no use, thou oughtest willingly to leave to us.' Amru answered: 'What is that of which thou hast need?' To which John replied: 'Of the philosophical works in the royal library'—meaning, probably, Greek profane writings. 'I have not the disposal of these things,' said Amru, 'until I have obtained permission of Omar, the commander of the faithful.' Hereupon he wrote to Omar, and related to him what John had said, receiving, in reply, a letter in which the Calif wrote: 'As to the books which thou hast mentioned, they contain either what agrees with the word of God, and, therefore, the word of God is sufficient, or there is in them that which contradicts the word of God, in which case we do not want them at all. Command that they be destroyed.' Thereupon, Amru ordered them to be distributed for heating the baths in Alexandria; and in this way they were consumed by fire in half a year. Hear what has happened and wonder!"

If the translation we have given of the above extract from the Arab historian be correct, the reader will see that he is not chargeable with saying, as is commonly reported, that the books in Alexandria were sufficient to heat the four thousand baths of the city for a period of six months. That Abulpharaj, however, is not above exaggerating, is evident from another statement he makes in speaking of the siege of

Syracuse, where he says that the Romans, after the capture of the city, burned fifteen loads of writings of Archimedes.

Some modern historians have treated the whole story as a fable, chiefly because several mediæval authors, who have written concerning Alexandria about this time, make no mention of the facts Abulpharaj professes to give. But historical criticism will not permit the denial of facts *in toto* on account of the contradictions or exaggerations of writers. Were we to proceed upon this principle but little history would be left. Strabo, who is a trustworthy authority, makes no mention of the great library in his description of Alexandria; and yet no one would for this reason think of denying its existence. While, therefore, we may not accept the Arab's statement as strictly true, we are not at liberty to treat it as wholly false. A middle ground is undoubtedly nearest the truth. Admit that comparatively few works of Greek profane literature survived the two great catastrophes we have mentioned; during the two hundred and fifty years from the destruction of the library in the Serapion to the Arab occupation sufficient time intervened for the accumulation of a large number of books. Literary taste was not yet extinguished, and there was still great wealth in the city. In a letter to the Calif, Amru says:

"I have taken the great city of the West. It is impossible for me to enumerate the variety of its richness and beauty, and I shall content myself with observing that it contains four thousand palaces, four thousand baths, four hundred theatres or places of amusement, twelve thousand shops for the sale of vegetable food, and forty thousand tributary Jews."

In a city so long renowned for literature there would still be some persons engaged in collecting books, while the controversies that raged in the church must have caused Christian literature to increase very fast. Books at this time would not make a bad article of fuel, being mostly of papyrus, and fastened upon wooden rollers.

After summing up the evidence we have been able to collect in regard to these libraries, we conclude that almost all the seven hundred thousand volumes of the earlier Alexan-

drian libraries had been destroyed before the capture of the city by the Arabs; that another, of considerable size, but chiefly of Christian literature, had been collected in the two hundred and fifty years just preceding the Arab occupation; and that Abulpharaj, in a statement that is not literally true, gives, in the main, a correct account of the final destruction of the Alexandrian Library.

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ART. IV.—1. *On the Subjection of Women.* By JOHN STUART MILL. 1869.

2. *Les Caractères de la Folie.* DUCLOS.

3. *Inquiry Concerning Virtue.* LORD SHAFTESBURY. London.

4. *Woman's Rights viewed Historically and Physiologically.* Art. in *National Quarterly Review*, No. XXXIX., Dec., 1869.

In a financial crisis, when many unsound firms have succumbed to the general pressure, and when examinations, searching and superficial, are being made into the condition of most commercial institutions, rumor no sooner questions the standing of a house than numbers hasten to believe in its insolvency. For the infectious character of distrust co-operates with the ever-existing tendency to assign to whole classes, by a too hasty induction, the merits or demerits which we perceive in certain of their members. Similarly, in an age when ancient and deeply rooted injustices have been held up one by one to public reprobation, when slavery, "divine right," sinecures, state subsidies to favored religions, state protection for favored industries, have been, or are being, numbered among the obsolete delusions of mankind, there is a natural predisposition to view the antiquity of a system, combined with the existence of an agitation against it, as strong, presumptive evidence in favor of its repeal. While this con-

dition of the public mind continues, the champions of sweeping innovations will always find it convenient and effective to declaim, as they love to do, against the tyranny of custom, and to cry, with the late Mr. Mill, that "habit should yield to reason." Now, this convenient truism, which the most bigoted conservative will hardly venture to deny, owes its efficacy simply to an insidious implication, either that the defenders of the assailed institution base their defence upon the fact of its being long established, or that old usages are likely to be unreasonable because they are old. The fact is that the antiquity of a practice affords at least a slight presumption of its being reasonable and just, a presumption which arises from the probability of its having encountered and withstood assaults of the pen, the platform, and the sword. Our forefathers must have been sad barbarians if all their observances deserve our condemnation. If many habits have been created and perpetuated by the force of numbers or the strong arm of despotism against the protest of reason, many others have been begotten and kept alive by wisdom, justice, and expediency. Few old customs are more unreasonable than the modern one of subverting customs.\*

But, in the case of restrictions placed upon woman, Mr. John Stuart Mill maintains that any favorable presumption arising from usage is rendered impossible by the fact that their prevalence is immemorial, no record existing of any age or nation in which she was placed on the same footing as man. No trial, therefore, he complains, has ever been made of a different system. This is a plausible, but only a plausible objection. For, though the actual failure of its opposite might be a stronger, it is yet a strong argument for any practice that a belief in the necessity of a change has never forced itself upon the bulk of society. And this is certainly the probability, where the practice has continued

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\* "Les principes puisés dans la nature sont toujours subsistants; mais pour s'assurer de leur vérité, il faut surtout observer les différentes formes qui les déguisent sans les altérer, et qui, par leur liaison avec les principes, tendent de plus en plus à les confirmer."—Duclos.

universally since the dawn of civilization, unless it can be shown that it has been continuously based, like slavery, mainly or solely upon the law of force and the selfishness of dominating individuals or masses. This is precisely what Mr. Mill believed, and has attempted to prove, in the case of what he calls the subjection of women. Men's opinions, he thought, are warped by self-interest, and their action in the premises hindered by a tacit agreement to guard their proprietary rights. In making this imputation, so repugnant to manhood, Mr. Mill has greatly underrated the power of men's affection for their mothers and sisters, their wives and daughters, as well as for their other female friends—an affection which, in the aggregate, usually far exceeds that which they cultivate for the whole of their own sex exclusive of themselves. In the case of those women, at least, over whom they can expect to exercise no prerogative, surely most men would wish to see justice done, while each would probably feel confident, whether with or without good cause, of his ability to retain control over the women of his own household by possessing their esteem or love. Whatever may be the feelings of more ignoble persons, it is absurd to suppose that the men of intellect and capacity, who have generally hitherto shaped the legislation of civilized nations, can have been actuated by any apprehensions of females eclipsing their own achievements or encroaching upon their triumphs; and, like most men, they would probably have enjoyed seeing their fellows discomfited by women. When men have been most inclined to better the condition of the weaker sex, the consequent amelioration has been effected, not by opening new fields of action to woman, but rather by relieving her from a portion of her toils and burdens—by removing her positive rather than her negative grievances.

Thus, in the age of chivalry, when the artificial virtue of modern courtesy may be said to have originated, and when the respect and consideration shown to her so vastly increased, her "sphere of usefulness" was certainly not enlarged. Indeed, the duties of ladies, outside their homes, seem to have

been merely ornamental. Mr. Mill, who admits the improvement in their status during the feudal times, has strangely misconceived its nature and its cause, being apparently misled by a few authentic instances of strong-minded women, who found the only available vent for their strong-mindedness in the profession of arms, and by such poetic creations as Tasso's Clorinda or Spenser's Britomart. Guizot, a more weighty and unbiased authority, observes, in his *History of Civilization*, that the augmented importance of women under the feudal system proceeded from their increased domesticity, and their exclusion from public and professional life. Where the bondage of woman has been most brutal and complete, no limitations whatever have existed as to the nature or extent of her labors, and she has performed, under compulsion, some of the masculine work which her *soi-disant* spokesmen are now demanding as her privilege. Of course, many of those women who are forced to share the curse of man would find their misfortune less severe if they enjoyed a wider range of available avocations; and we cordially hope to see them possessed of this advantage. But we cannot desire, as Mr. Mill did, to add another to their number, or to encourage one woman, uncompelled by necessity, to abandon her domestic duties, and the amenities of private life, for the indurating arena\* of law or of politics.

Female agitators delight in enumerating the classes excluded from the suffrage—women, children, lunatics, and criminals. And yet this very category suggests a further answer to the assertion that the restrictions imposed upon women, at least as regards their exclusion from the elective franchise, emanate from the "law of the stronger." For, as criminals are disqualified evidently for the protection of society, and lunatics and children for the same reason, as well as for their own advantage, so it may be fairly presumed that

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\* We greatly prefer the opinion of Jean Paul Richter to that of John Stuart Mills. "The purer the golden vessel," says the German philosopher, "*the more readily is it bent; the higher virtue of women is sooner lost than that of men.*"

the remaining class, too, has been excluded from some good and defensible motive.

In a discussion which, like the present, admits of positive arguments, any presumption in favor of a system arising from long usage is of little weight, except that it helps to lay the burden of proof upon its assailants. On their side the *onus probandi* will always lie despite the protest of Mr. Mill. Excusers and defenders presuppose the existence of accusers and attackers, except in the case of the few casuists or philosophers who start objections for the sake of answering them. The *a priori* presumption in favor of freedom and impartiality is counterbalanced by that in favor of prescription in the question of female suffrage as fairly as it would be in an agitation for removing the disabilities of criminals, or for reducing the legal age for attaining one's majority.

There is, indeed, a more than ordinary reluctance on the part of the advocates of the *status quo* to enter the polemical arena. This reluctance arises in the case of females from their aversion to become conspicuous like their "strong-minded" sisters, even on what they consider the respectable side; and in the case of males from an indisposition to wage an inglorious war. The martial ardor of Caucasians seldom burns for a campaign against Achænes or Ashantees; or, when it does, the flame is probably kindled by love of promotion, or loot. The bubble honor is rarely to be won in such contests. And, similarly, doughty warriors of the pen yearn for foemen worthy of their steel. Besides, a lurking, chivalrous instinct deters men from entering the lists with the fair sex. Even the lachrymose Æneas—not a very knightly type of manhood—reflected that it could not improve his reputation to attack the unprotected Helen during the burning of Troy, and hesitated before he finally determined to avail himself of so excellent an opportunity. An undue sense of superiority also contributes to the indisposition of male writers seriously to contest the propriety of female suffrage with its female champions. They forbear, with vast magnanimity, to use the club of Hercules

to crush a gnat. The popular use of the question-begging phrase, "woman's rights," too, probably adds to this reluctance. Many shrink from placing themselves, even in the eyes of those unreflecting persons who are biased by misnomers, in the unenviable position of seeming to oppose, from mere selfishness, what is fair and just.

Whatever may be the motives which inspire it, this aversion of journalists and literary men to combat, otherwise than by ridicule, the wild demands of the female enthusiasts, is to be regretted for two reasons. In the first place, the number of well-meaning people, who are inclined to sympathize unreflectingly with plausible and uncontroverted pretensions, is extremely great; and it may require volumes of argument to eradicate a prejudice which a few opportune pages might have prevented from taking root.\* Secondly, the agitators are liable to fancy, from the silence of their opponents, that their claims and arguments are novel and unanswerable, while the fact is that their most advanced ideas have been frequently propounded and assailed. Lysurgus practically, and Plato theoretically, favored the extension of woman's sphere of action to a startling extent, the latter even proposing that she should serve in the army, and practice manly exercises in the airy costume he so prettily alludes to: *Ἀρετὴν ἀντὶ ἰππικῶν ἀμυιέσονται*. On the other side, Aristotle, who never disdained to combat opinions which he considered noxious, objected to her participation in war and politics, not only on account of her physical and mental unsuitability thereto, but also on the ground that her character would be impaired thereby. And eminent writers, ancient and modern, have gravely resumed the discussion from time to time down to the present age, in which a really clamorous and wide-spread agitation has generally been met by ridicule alone. Sneers and jests may be potent forces, but they should serve as auxiliaries.

It is, then, satisfactory on the whole, and has proved con-

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"Ses préjugés les plus ténaces sont toujours ceux dont les fondemens sont les moins solides." *Duclos*, ch. 2.

ducive to a full discussion and fair decision of the vexed question, that in front of the hosts of noisy declaimers a philosopher like Mr. Mill has taken his stand, and thrown down a gauntlet which no opponent could disdain to pick up. The more deeply and earnestly the advisability of conceding female suffrage is considered, before the experiment is made, the better for society. The final conclusion of civilized nations upon the matter will affect more people than have ever been affected by the institution of slavery, of a titled nobility, of primogeniture, or any other factitious distinction which exists, or has existed, among mankind. Nothing can mend or mar the character as well as the happiness of the human family more than the mutual relations of the sexes.

Justice would imperatively demand female suffrage if the truth were universal that "representation should accompany taxation." But minors are taxed everywhere, directly and indirectly, while the right of voting is denied them as likely to injure themselves no less than society at large. The privilege is also withheld from released convicts, and no one therefore clamors that they should be exempted from contributing to the public revenues. Of the many intelligent persons who favor restricting the right of suffrage by requiring an educational qualification, no one would consider it unfair that the disenfranchised should continue to pay their quotas of the taxes. Nor is there any one who claims an immunity from assessments for foreigners prior to their naturalization. It is clear, then, that considerations of public utility may exist sufficiently strong to justify exceptions to the excellent rule of "no taxation without representation." The vital issue is whether they do exist in the present case.

It is another general truth that "the moral force of a government depends upon the consent of the governed." But, manifestly, the existence of a few persons who protest against a given system of polity cannot be held to relieve the other members of the community from their moral obligation to observe the laws. That even the discontented minority enjoy this moral exemption is by no means certain. Possibly

it may be tenable in the case of enactments affecting only a single class, and which are passed against the interests and desires of the majority of that class. In determining forms of government, or measures which affect the whole community alike, no more can be expected than the consent of the larger portion of the population; and it would be very dangerous doctrine to maintain that the sanctity of general laws or the duty of obeying them has no existence for dissentients. The most liberal and popular constitution will have its maligners, not to mention the dangerous classes, the natural foes of all government. And, even if female suffrage were to be considered—a view which we shall afterward combat—as a question only affecting the rights of a portion of the commonwealth, and therefore proper to be decided solely by the will of that portion, we still believe a large majority of women do assent, tacitly but cordially, to the political supremacy of man. We cannot agree with Mr. Mill that even questions asked in private upon such topics “will not be answered with entire sincerity by one woman in ten thousand.” It may be that, with so decided a Malthusian as himself, the ladies may have had more reserve than sympathy, and they would scarcely have selected him as a confidant. To suppose, as he did, that their deference to the opinions and tastes of men can produce so much dissimulation, is to supply a far stronger argument against their enfranchisement than that which is based on the avowed contentment of most women of the better classes with their present status,\* and their probable political inaction if enfranchised.

To demonstrate that a right is unneeded does not disprove its existence, or nullify the obligation of conceding it if it does exist. To effect either result, it must be shown to clash inevitably with the rights of others or with the general interests. At the same time, to prove a reform unnecessary would reduce

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\*This class accept the precept of Goldsmith, that “The modest virgin, the prudent wife, or the careful matron, are much more serviceable in life than petticoated philosophers, blustering heroines, or virago-queens.”

the importance of the attending agitation, and probably tend to postpone its consideration and settlement. But, although the civil disabilities imposed upon woman have been for years disappearing from the statute-books of Christendom, and nowhere faster than in America, we are willing to waive all objections to female suffrage based upon the sufficiency of the privileges and protection at present enjoyed by the sex. This concession we make the more cheerfully, because the admission of female grievances allows us to use a strong argument against the expediency of working for female suffrage. For it is only the chivalry, or disinterestedness of man that can grant to woman either her political enfranchisement or the removal of any of her positive wrongs. Now, if a narrower and less disputed claim be not allowed by man, it is vain to agitate for a wider and more disputed one. A concerted movement for securing the proprietary rights of woman, wherever they have not yet been fully established, or for enabling her to practise law or physic, would not only meet with fewer opponents, but enlist more supporters in both sexes than the agitation for female suffrage.

Foremost among the dangers to be apprehended from the concession of this privilege is that of lowering the standard of legislation, and of official morality and talent. It is true that in several of our own States the existing standard may seem incapable of further deterioration, and that quite the contrary effect is anticipated by many from the introduction of the female element into politics. But, at least, at the outset, it is probable that few but bold and "manly" women would use their right of voting, and in the present organization of society a considerable proportion of the bold and manly women are venal, and of doubtful purity. To what an extent those of more feminine character, the matrons and maidens, or, more important still, the ladies of the country, could be induced by the effect of time and example to register and vote, to canvass and to stump, must remain a matter of opinion. And when, if ever, they should have emerged from their privacy to check the

evil influence of their advanced sisters, it is to be feared that their emotional nature would be peculiarly liable to be warped by impassioned appeals, or influenced by personal likes and dislikes, by jealousy and admiration.\* Moreover, unhappily, the men who excite most interest in most women are not always the wisest or most virtuous of mankind. Among most girls of the period, more or less sympathy, expressed or repressed, exists for masculine recklessness and extravagance, especially when the object of the latter failing may be their own sex. The good taste and the politeness of a candidate, we fear, would have an undue influence in his favor; and military glory would tell far too potently upon an election, should women, the worshippers of Mars, obtain the franchise. Roué though he was, Alcibiades could have been dictator, had every woman been a man in ancient Athens, as she is now in this country—according to Miss Anthony.

Again, it seems to be generally conceded that woman is more liable than man to have her thoughts and feelings regarding any class prejudiced by the few individuals of that class that come immediately under her notice; more impressed by the sights and sounds around her; less disposed to generalize, and less able to subject impulse to principle. The humane man may extend his warmest sympathies to suffering humanity at the antipodes, and may be exercised over the magnitude more than the nearness of distress. The humane woman is more likely to confine her kindness and solicitude to the isolated misery which meets her face to face. This difference of organization, which renders women (not in love) less prone than men to absence of mind or inattention to their surroundings, may eminently fit them for duties requiring watchful and devoted care; but it reduces the desirability of their voting in regard to general laws. Thousands of women are willing to sacrifice themselves for the sake of affection, but it would be hard to find one ready to sacrifice

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\* "La plupart des femmes jugent du mérite et de la bonne mine d'un homme par l'impression qu'ils font sur elles."—La Bruyère, ch. iii.

the interests of those dear to her, merely to do the greatest good to the greatest number. We do not magnify the percentage of men gifted with this degree of stoic virtue—modern Brutuses who abandon their children to the consequences of their misdeeds usually do so from selfishness—but we believe it to exceed that of the women similarly endowed. The existing evil of special legislation, it may therefore be expected, would be considerably increased under the *régime* yearned for by the school of Mr. Mill.

A still greater danger lies in the extension of clerical influence in politics, which would be likely to result from the greater devoutness of the female sex,\* if its devout plurality were eventually to take an active part in public questions. The much-to-be-deprecated introduction of sectarian religious instruction into the common schools; the establishment of religious tests for public officers; the multiplication of unchristian controversies; the prohibition of travelling on Sundays; the enactment of sumptuary laws, and other retrogressive measures, would possibly, and not improbably, follow in the wake of female suffrage.

But, then, "the refining influence of women at the elections—." Has any one perceived the refining influence of a girl participating with boys in a game of football? Or has any historian recorded the humanizing effect of the *petroleuses* on the communistic defenders of Paris, or of any other women who have intruded themselves into the ruder excitements of the male sex? The amount of refinement likely to be effected by woman's presence at the polls may be inferred from the howling crowds of roughs who are said to have recently attended the praying bands in the larger cities in the Western States. These rowdies, it is true, were generally withheld from being grossly and personally insulting by a lingering respect for prayer, or, at least, by the interference

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\* "Si une femme pouvait dire à son confesseur, avec ses autres faiblesses, celles qu'elle a pour son directeur, et le temps qu'elle perd, dans son entretien, peut-être lui serait-il donné pour pénitence d'y renoncer."—La Bruyère, ch. iii.

or fear of others who were not destitute of such veneration. But these motives would not be operative in the case of lady voters. We may be forming a low estimate of the lowest types of humanity when we predict that the profanity and violence which now so often disgrace the polls would only be supplemented by frequent carnivals of coarseness and obscenity. The street Arabs of the cities, who love to hover on the skirts of crowds to gratify their critical instincts, and whose sense of humor is generally curbed by fear alone, would fearlessly unbosom themselves to the female voters, to the amusement, we apprehend, of most bystanders. For it is to be observed that the chivalry of man has always declined, and will always decline, with the dependency of woman. It was when she was unprotected by law, oppressed by customs originating in the dark ages, and never dreaming of independence or self-assertion, that she evoked that splendid outburst of slumbering magnanimity and mercy which historians have named the spirit of chivalry. Even then, when Clorinda or Belphebe girded on the sword to contend with men, she met no gentle handling from the yeomanry, and little from the knighthood, of those courteous ages. And an election is quite as unfavorable for courtesy as a battle, the free and independent voter of the nineteenth century is no more devoted to chivalry than the mediæval man-at-arms, and the average advanced female of to-day is certainly no more likely to awaken the feeling than was a Belphebe or a Britomart.

While we sincerely sympathize with every reform which tends to afford a fairer field of exertion to those women who are forced to select for themselves a trade or profession, we deprecate every thing that is likely to allure those who possess the inestimable privilege of a home to desert their fittest sphere of action, or to strive for intellectuality and force to the detriment of sensibility and persuasiveness. Now, to concede the vote would directly encourage them to mix in politics, and participate in public meetings. It would lead them to court, instead of to shun, notoriety, and to mingle in the toils and dissipations of men. To become rivals instead of *protégées*,

to stand alone where they used to lean, would demand a training sterner and more indurating, and a fuller knowledge of a world where there is so much to shock their modesty and blunt their sensitiveness. Cynicism, hardness of heart, skepticism, and shamelessness, are among the fruits gathered by man in that extended field into which his wayward sisters desire to penetrate. Where the contrast between the sexes has been least marked, the tenderer one does not seem to have gained in purity. The Spartan maids, who exercised in public unrobed, did not always, as Plato fondly hoped his ideal virgins would do, wear virtue as their raiment. The mothers of the Partheniæ doubtless acted from patriotism, but less strong-minded women would probably have considered their honor paramount. In Euripides' time, the Spartan dames had quite lost their vaunted reputation, and earned the epithet *ἀνδρποναεῖς*.\* St. Paul apparently thought moral deterioration a natural consequence of a decline in female domesticity, from the sequence of his admonitions to young women "to be discreet, chaste, *keepers at home*, good, obedient to their own husbands."

And, if female suffrage would impair the character of the weaker sex, it would affect that of the stronger at least as injuriously. The restrictions to coarseness, which the presence of woman now commonly imposes upon her grosser lord, proceeding, as it does, from the difference of her life from his, and from a deference for the innocence of one removed from the improprieties and asperities which he knows so well, would largely disappear. The virtues of magnanimity and disinterestedness, which he chiefly displays in dealing with the tender sex because of its tenderness and dependence, will have a narrower field for their exercise when woman has proudly repudiated his protection, and proclaimed herself his competitor even in his prescriptive function of governing. The manhood of man must suffer some loss when woman has

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\* "For," says the author of *Alcestis*, "silence and a chaste reserve is woman's genuine praise, and to remain quiet within the house."

appropriated a portion of it. For its nobler attributes are created and evoked by the duty and privilege of ministering to her wants, of defending her weakness, and fortifying her timidity.

We cannot hold with Mr. Mill that "the denial of the vote is a proclamation that society does not expect women to concern themselves in public questions." One might as well conceive that the Apostle in forbidding them to speak in churches expressed a desire that they should not concern themselves in religious matters. They are not accepted as sailors or soldiers, yet they interest themselves with the warmest patriotism in their country's quarrels. They are not eligible for the clubs, yet they listen to their echoes, and rediscuss their doings with spirit in their private circles. Who that has seen the light and dark blue fluttering in countless toilets at the English University boat race, or noticed the innumerable fair faces that throng the windows of Fifth Avenue when a favorite regiment marches by, can doubt the enthusiasm that women are capable of feeling in things which they cannot participate in? And to debar them from the elective franchise is not to deprive them of their natural influence on the character of legislation or of legislators any more than to exclude them from the diplomatic service can prevent their exercising indirectly their proverbial, powerful influence on the fates of 'empires and peoples. Indeed, we do not believe that the political or social power of woman as the compeer and competitor of man would equal that which she now enjoys through her very disabilities and weakness. The gentle influence of suasion and appeal that she exercises over the coarser nature of man will inevitably decrease when she emerges from her submission and challenges in all its avocations a sex which she will before then have been schooled to regard as her tyrant. No man, worthy of the name, will abuse a woman who seeks his protection, but, should she defiantly stand in his way, he will assert his superior strength often without mercy. Woman's most cogent argument has

hitherto been the *argumentum ad hominem*,\* and her traditional tactics of entreaty have led her to unnumbered victories. That the indirect influence is the more effective, is probable; that it is the more womanly, is certain.

Of course there are females—and these are generally the mainsprings of movements for emancipation—utterly destitute of the inherent magnetism and acquired graces which attract and persuade, who might gain some influence and would certainly lose none from the proposed innovation. Once upon a time, according to the fable, the donkey envied the consideration enjoyed by the poodle with their common master, and, observing that this consideration was apparently won by fawning and caressing, he attempted the same tactics and met with a most depressing rebuff. Finding his playful antics sadly unappreciated, he afterward sought, with temporary success, to gain importance by assuming a lion's skin. His triumph, it is true, had a rather painful sequel; yet it was not such a very bad idea for a donkey. But, if the poodle had also grown discontented and tried the effect of intimidation instead of gambols, frolics, and caresses, he would have been a far greater donkey than that notorious one.

Woman has manifestly been designed by nature as a complement, not as a substitute, for man. If society has put her under certain political disabilities, her Creator has put her under certain physical disabilities. Even, independently of the curse of Eve, the average woman cannot calculate upon her ability to work continuously with as well-grounded confidence as the average man, while in bodily strength she cannot compare with him. On the other hand, she excels him in delicacy of touch, in lightness of step, in softness of voice. It is hard to specify a moral or intellectual quality in which her superiority or inferiority is so unanimously conceded, but it is equally hard to find a person who would deny that she does possess mental and moral inferiorities as well as

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\* "Women," says Sarille, "have more strength in their looks than we have in our laws, and more power by their tears than we have by our arguments."

superiorities. It is, however, usually admitted that, in perceptive powers, she surpasses, and in intellectual, falls short of man. To doubt that her different organization was designed to fit her for different duties would be simply to doubt the wondrous adaptation of means to ends, which pervades all nature.

Moreover, the infirmities of woman wholly disqualify her for the military and naval service of the State. Being, then, exempted from the burden of defending her country, is it meet that she should participate in the privilege of governing it? This prerogative, it is to be observed, is not enjoyed by any other of the classes similarly exempted. It is quite true that the existence of a constitutional principle, such as this, is not a positive proof that its universal application is either just or expedient. But if, as we conceded when dealing with the argument about taxation and representation, it requires powerful reasons to warrant an additional exception to a rule which has already several exceptions, it certainly ought to demand still stronger considerations to justify the first important divergence from a more invariable principle of government.

It is not our desire to see every calling closed to woman, for which we may conceive her to be unsuited. Differences of opinion must always exist as to her fitness for certain functions; and we believe that either good sense would dissuade her, or else competition would drive her from those pursuits which do not accord with her qualifications. But this remedy would not be practicable in the case of female suffrage. Here it is well carefully to weigh her capabilities in advance. Incapacity developed by a newly enfranchised class, we know too well, is not analogous in its effects to the incapacity displayed by persons embarking in a business. The latter chiefly injures the blunderers themselves, the former chiefly injures the community. Those who prove incompetent for a particular trade are, sooner or later, forced by competition to seek another better adapted to their abilities; but incompetent voters are likely to be abiding evils.

ART. V.—1. *The Lives and Opinions of the Most Illustrious Philosophers.* DIOGENES LAERTES.

2. *Histoire de la Philosophie Ionienne.* C. MALLET.

3. *De Natura Deorum.* (*On the Nature of the Gods.*) CICERO.

4. *De Placitis Philosophorum.* (*Of the Opinions of the Philosophers.*) PLUTARCH.

5. *Geschichte der Philosophie.* (*History of Philosophy.*) RITTER.

6. *The Principles of Science.* JEVONS. London.

It must not be inferred from the above titles that our object is to write an essay or dissertation on Philosophy. Still less is it our intention to become the champion of any particular sect of philosophers. At first view, this assurance may seem uncalled for, but we wish to avoid awakening prejudices. It is well known that no former age boasted so large a multitude of those who call themselves philosophers as the present. As a natural consequence, the public is overdosed with "philosophy." It must be allowed to recover from the surfeit before it can be expected to have any appetite for a further amount of the same pabulum.

The task which we propose to ourselves, in the present instance, is simply to facilitate the digestive process in the public stomach. The physician who relieves a stomach which has been overloaded with crudities, performs but half his duty if he neglects to warn his patient against such crudities in the future, and to advise the use only of wholesome, nutritive food. The Father of Medicine used to tell his disciples that it was a very common and dangerous habit, in his time, on the part of a certain class, to recommend as newly discovered, and wonderfully invigorating, articles which had been but too well known ages previously, but had been

rejected on their worthlessness, or deleterious properties being demonstrated. "I have met, at Samos," says Hippocrates, "a very learned, clever, and civil gentleman, who informed me that he had lately discovered an herb never before known in Europe or Asia, and that no disease, however chronic or malignant, could resist its marvellous properties. Wishing to be civil in turn, I permitted myself to be persuaded to accompany him to the conservatory in which he had transplanted the wonderful specific. What I found, was one of the commonest plants in Greece, namely, garlic (*σκόροδορ*)—the plant which, above all others that can be used by man as an article of food in times of famine, has least pretensions to healing virtues." \*

Now, we will undertake to show that nine-tenths of the discoveries which our philosophers of the present day claim to have made, or which they present to the world as a new revelation, have quite as little originality in them as the garlic of the Samian, and are far less useful to mankind than that generally despised and rather strong-scented vegetable. But, in doing so, we disclaim all intention of depreciating the labors, researches, or utterances of any individual, whether he be called, or calls himself, a philosopher or scientist.

That great discoveries have been made in modern times, far be it from us to deny; on the contrary, we yield to none in our appreciation of such. We trust that none set a higher value on what has been accomplished by the great masters in astronomy, chemistry, and geology. Were we capable of sneering at the labors of men like Copernicus, Kepler, Galileo, Newton, Laplace, Berzelius, Gay-Lusac, Priestly, Davy, Franklin, Faraday, etc., we should only display our vanity and credulity in attempting to discuss a subject like the present, or, indeed, any subject requiring a wide range of thought or extended research. But those who favor us with their attention will admit before we close that, although our estimate of those claiming to be the philosophers of our

\* *De Optima prædicandi ratione item judicii operum magni Hippocratis, liber unus.* See also Schöll, *Hist. Lit. Gr.*, vol. iii., p. 15.

time may seem at first sight a harsh one, it is by no means unjust.

Doubtless, the reader is aware, by this time, that we allude to those who claim to have made new discoveries in regard to the nature of matter, the human soul, the mind, the universe, how the universe came into existence, etc. With the religious phase of these questions we have nothing to do; we discuss the subject as we would the cosmogony of Hesiod, or the gods of Homer.

The religious world has been much startled, and not a little excited, by the utterances of men like Spencer, Tyndall, Huxley, Proctor, and a few others of the same school. Most cheerfully do we admit how much science owes to each of those gentlemen. Moreover, we do not regard any of them as having done injury to mankind; we are satisfied, on the contrary, that all have done, and are doing good, since it is impossible to discuss such subjects before the public, and bring so much learning and ability to bear upon them as they do, without creating a taste for investigation and research; and the development of this taste alone is of inestimable value.

Thus far, then, all is well, so far as those gentlemen are concerned. But we most emphatically deny that they are discoveries. There is nothing new in the speculations even of the most "advanced" of them; nothing which was not known, and taught, in one form or another, thousands of years ago. True, it is but justice to those scientists to say that they do not put forward their theories expressly as their own discoveries; but they leave the fact to be implied, and the newspapers do the rest. With the best intentions, the latter proclaim that new revelations have been made to the world. The public, which has neither the time nor the inclination to examine the facts, and judge for itself, adopts the faith of the newspapers, opens its eyes very wide, and wonders what will come next! The pastors of all Christian sects become more or less indignant, according as they are more or less orthodox. Even, if the latter happen to know that there is nothing new in the cause of their trouble, they deem it advisable not to reveal the fact to their flocks,

lest they might think, in an evil moment, that ideas put forward so many ages ago, and so often revived, must be founded in truth. We need not say how much excitement is thus produced. The supposed originators of such startling theories are assailed in the newspapers. Sometimes the obnoxious scientists undertake to defend themselves, but we cannot recall a single instance in which they have candidly said: "Gentlemen, be not angry with us; we are merely revamping stories which are nearly as old as the mountains." This would have been the simple truth; but even scientists or philosophers are not always proof against the weakness of encouraging any notion which they think may secure riches for them among the immortal ones.

It is needless for us to particularize the theories or doctrines to which we allude. They are sufficiently familiar to our readers; and we have not room for the introduction into this article of superfluous matter. We therefore proceed, without further preface, to see what were the views of the ancients in regard to the universe—man and his destiny, the soul, matter, motion—especially the First Cause of all. It is not necessary that we should observe a strictly chronological order in presenting to our readers brief specimens of the views of the Greek philosophers. We may remark, however, that no facts are more generally accepted, among investigators in that prolific field, than that the Ionian philosophy was based on Egyptian ideas, that the Italian or Pythagorean philosophy was based on a blending of Egyptian and Hindoo doctrines, and that the Eleatic philosophy was founded on the Ionian and Pythagorean philosophies combined, exhibiting in many respects an important improvement on both. The Ionian philosophy, which was the oldest, included biology, psychology, cosmogony, and astronomy; the Pythagorean philosophy borrowed the doctrine of transmigration directly from the Egyptians and Hindoos; and the Eleatic philosophy made similar use of the pantheistic doctrine of the latter.\*

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\* *Hist. de la Phil. Ionienne*, Mallet. See also, Ritter's *Geschichte der Phil.*, vol. i., p. 22.

Let the reader bear in mind the ideas which, at the present day, are considered so new and startling, and compare them with those of any of the Greek schools just mentioned. "This universe, containing all that exists," says Heraclitus, "has been created neither by God nor by man, but *has always existed*, and *will ever remain*, a vivifying fire, being kindled and extinguished according to *definite laws*." Referring to the constant motion which pervades all nature, and which is claimed to be a modern discovery, the same philosopher says: "All *is* and *is not*, for, though it comes in truth into being, yet it *forthwith ceases to be*." Zeno, on the contrary, denied that there exists any motion, maintaining that the universe is really but one being. In other words, Zeno was a pantheist, as many Hindoo philosophers had been before him, although in our time Spinoza is almost universally regarded as the father of pantheism. Zeno's mode of proving the unity of all things is as follows: "To suppose that the One is divisible is to suppose it finite. If divisible, it must be infinitely divisible. But, suppose two things to exist, then there must necessarily be an interval between those two—something *separating and limiting them*. What is that something? It is some *other thing*. But, if not the same thing, *it also* must be separated and limited, and so on, *ad infinitum*. Thus, *only one thing can exist, as the substratum for all manifold appearances*."

Those who differed with Zeno sought to refute him by adducing the evidences of their senses; just the same arguments made use of at the present day against pantheism, and in support of the existence of matter. His method of maintaining his views, and showing that we must not rely implicitly on the evidence of our senses, is exemplified as follows by his biographers: "He asked if a grain of corn, or the ten thousandth part of a grain, would, when it fell to the ground, make a noise. Being answered in the negative, he further asked whether, then, would a measure of corn. This being necessarily affirmed, he then demanded whether the measure was not *in some determinate ratio to the single grain*; as this could not be denied, he was able to conclude, either, then,

the bushel of corn *makes no noise in falling*, or else the *very smallest portion of a grain does the same*." None will deny the logical force of this. Several other arguments of Zeno are extant; at least, those to which we allude are as well attested for genuineness as any other statements of the same remote period which have reached our time; and there is not one of them which does not strongly tend to prove that their author was a profound thinker and careful investigator. Anaxagoras, the instructor of Pericles, and, as some think, also, the instructor of Socrates, was equally opposed to the evidence of the senses. "Wrongly do the Greeks suppose," says Anaxagoras, "that aught begins, or ceases to be, for nothing *comes into being*, or *is destroyed*, but all is an aggregation or secretion of *pre-existent things*, so that all-becoming might more correctly be called *becoming-mixed*, and all corruption *becoming-separate*."

There is no materialist of the present day who can pretend to adduce stronger arguments in support of his theory than Epicurus. Referring to the origin of our being, that philosopher proceeds: "The soul thus produced must be material, because we trace it issuing from a material source; because it exists, and exists alone, in a material system; is nourished by material food; grows with the growth of the body; because matured with its maturity; declines with its decay; and hence, whether belonging to man or brute, must die with its death."

The whole system of Epicurus is illustrated by Lucretius\* in beautiful poetry. We learn also from the poet-philosopher that his great master was a firm believer in a plurality of worlds, and regarded the earth and all it contains as but a speck in the universe:

Terranque et solem, lunam, mare, cetera quæ sunt,  
Non esse unica, sed numero magis innumerati.†

Even those, who, like Berkley, Stuart Mill, and others,

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\* *De Rerum Natura*.

† That earth, sun, moon, sea, and the rest that are,  
Not single but innumerable are.—*De Rerum Natura*, ii., 1085.

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deny the existence of matter, can claim no originality for their doctrine. "No, no," says Empedocles, "*we feel nothing, we see nothing*; all things are concealed from us; there is not one thing of which we can positively say what it is."\* Referring to the same philosopher, Plutarch tells us: "Empedocles believes that nature is nothing else but the mixture and separation of the elements."† Plutarch himself, speaking of matter, defines it as "that first *being* which is substrate for generation, corruption, and all other alterations."‡ To this he adds that the followers of Democritus "aver that the *vacuum*, the *atom*, and the *incorporeal substance* are the first beings."§ Our readers remember what an excitement has been created by the utterances of some of our modern philosophers as to the origin and nature of ideas, but those utterances, like others that preceded and followed them, contain nothing new. "An idea," says Plutarch, "is a *being* incorporeal, which has no subsistence by itself, but gives figure and form unto shapeless matter, and *becomes the cause of its manifestation*."||

If we pause here to inquire which of the Greek philosophers has rendered himself most illustrious by his teachings and mode of life, we shall find that it was the one who, above all others, was least a scientist, in the modern acceptance of the term, namely, Socrates. It was before the time of Socrates that the sciences were most cultivated by the Greeks. None were considered philosophers then but those who devoted their chief attention to mathematics and physics. Socrates thought this notion had been carried much too far; accordingly, he opposed it with all his might. His philosophy was purely ethical. The only sciences he would have studied thoroughly, were logic, and what, at the present day, is called social science. Yet his school was undoubtedly the greatest in its results of all those that shed lustre on Athens; and that its influence was the most enduring is sufficiently proved by

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\* Cicero, *Quæst. Acad.*, iv., 5.

† *De Placitis Philosophorum*.

‡ *De Placit. Phil.*, ch. ix.

§ *Ibid.*

|| *Ibid.*

the fact that among his disciples were Plato, Aristotle, Xenophon, and Pericles. In short, all the Greek authors, whose works are immortal, belonged, directly or indirectly, to the Socratic school.

We are aware that it will seem a gross anachronism to refer the Homeric poems to the Socratic school, since they had been produced, whether by Homer or not, ages before Socrates was born. But be it remembered that they are as much ethical as heroic. Moreover, as Homer everywhere inculcates respect for the religion of the people, and veneration for the gods, so does Socrates, and *vice versa*. There is not one of the tragedies of Æschylus, Sophocles, or Euripides, which is not imbued with the ideas which Socrates took so much delight in inculcating. Even Aristophanes, who has satirized the philosopher in more than one of his comedies, was as much opposed to the arrogant pretensions of the scientists of his day as Socrates himself. But, had Socrates had no other pupils, or disciples, than Plato, Aristotle, and Xenophon, he would still have been entitled to the distinction of having exercised a more powerful influence on mankind than all the other Greek philosophers put together, including Heraclitus, Empedocles, Zeno, Democritus, and Epicurus; since not one of all the latter has left a work, either from his own pen or that of his disciple, which is worthy of comparison with the smallest or least important of the great intellectual legacies bequeathed to the world for all time by Plato and Aristotle.

But the philosophy of Socrates is foreign to our present subject, except in the contrast it presents, for the teacher of the divine Plato had no ambition to be regarded as an atheist, although the polytheism of the Greeks of his time never received any support or encouragement from him. That he lived and died a monotheist, we have ample evidence. A favorite precept of his was, "He is only a madman who imputes success in life to human prudence." A nobler speech was never delivered than that by Socrates to the judges who condemned him to death, and which concludes as

follows: "It is now time that we depart—I to die, you to live—but which has the better destiny *is unknown to all except God.*"

Among the Romans, philosophy was but little cultivated. The most illustrious of the Roman philosophers were Cicero and Seneca; and, whatever may have been the private views of either, both always evinced their respect for religion in addressing the people with pen or tongue. With Caesar the case was different. In the celebrated speech delivered by the latter, in the senate-house, against capital punishment, and reported by Sallust, he gave expression to sentiments which the most "advanced" of our modern philosophers could hardly exceed in their materialistic impiety. "In grief and misery," says Caesar, "death is a reprieve from the sorrows of life, not a punishment; it puts a termination to all the ills of mankind; beyond the grave there is room for neither care nor joy."\* The very different views of Cicero and Seneca pervade all their philosophical writings.† But there was this difference between the three—Cicero and Seneca prided themselves in being followers of Socrates and Xenophanes, whereas those whose doctrines Caesar professed to admire were Heraclitus and Epicurus.

But it was not necessary for our modern philosophers to have gone to Greece or Rome for those ideas on the nature of things, which they would have the English-speaking world regard as a new revelation. They had only to go back one generation, among the thinkers of France, Germany, and Italy, to find every theory and doctrine they have proclaimed as their own within the last decade, not excepting those which have made Spencer, Tyndall, and Huxley, so famous among the large class who assume that any theory, or doctrine of

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\* "De poenâ, possum equidem dicere id quod res habet; in luctu, atque miseriis mortem aernumnarum requiem, non cruciatum, esse; eam cuncta mortalium mala dissolvere; ultraneque curae, neque gaudio locum esse."—Sallustii, *Bellum Catilinarium*, 42.

† See especially Cicero's *De Natura Deorum*, and Seneca's *De Beneficiis*.

which they had never heard before, must necessarily be a new discovery.

The world has heard much, for nearly a century, of the "Infidel" authors of France, especially of Voltaire, Volney, and Bayle. But not one of these has denied in his writings, or public utterances, that the universe is the work of an All-wise Artificer. On the contrary, the most eloquent passages in the works of each are their arguments in refutation of atheism. Instance Voltaire's criticism on the "System of Nature" in his article on "Final Causes."\* And the same spirit pervades all his writings. Thus, for example, he maintains in one of his epistles that, if only for the sake of morality—in order to exercise a wholesome restraint on the common people—if God did not exist, it would be necessary to invent one.

Si Dieu n'existait pas, il faudrait l'inventer.†

Similar arguments will be found in several articles in Bayle's Dictionary, especially in those on Lucretius, Spinoza, etc. Volney, like Voltaire and Bayle, has, indeed, assailed superstition and hypocrisy, but, like the same great thinkers, he has raised his eloquent voice, again and again, against those who proclaim to the unreasoning multitude that there is no God. "For every man," says the author of "Ruins of Empires," "who observes with reflection the astonishing spectacle of the universe, the more he meditates on the properties and attributes of each being, on the order and admirable harmony of their movements, the more certainly is he convinced that there is a Supreme Agent, a Universal and Identical Artificer, designated by the name God."‡

Yet, if these philosophers lived in our time, not a doctrine or theory put forward by the most "advanced" of our scientists would be new to them, for each had thoroughly studied the various systems of the Greeks. Voltaire gives us his experience, with his usual frankness and modesty, thus: "I have

\* *Diet. Phil.* † *Epître à l'Auteur du Livre des Trois Imposteurs.*

‡ *La Loi Naturelle*, par M. Volney.

consumed about forty years of my pilgrimage, in two or three corners of the world, seeking the philosopher's stone called truth. I have consulted all the adepts of antiquity, Epicurus and Augustine, Plato and Milebranche, and I still remain in ignorance." \* \* \* "All that I have been able to obtain by comparing and combining the systems of Plato, of the tutor of Alexander, Pythagoras, and the orientals, is this: 'Chance is a word void of sense; nothing can exist without a cause. The world is arranged according to mathematical laws.'" \*

When infidelity was most rampant in France—in the time of the encyclopedists—when thought was as free as it ever has been in any country in the world, those having the strange ambition to be the champions of atheism, assumed fictitious names. This is true, for example, of the author of the *Système de la Nature*, who, in the first edition of that famous essay, assumed the name of Mirabaud, secretary of the French Academy. He did not do so because he was a novice in authorship, and, therefore, doubted his abilities, for he had already contributed several articles to the celebrated *Encyclopédie*, on natural history, philosophy, etc., all of which had been well received. The author is now well known to the world as Paul Baron d'Holbach, a German by birth, but a Frenchman by education, having spent nearly all his life in Paris. Now, if the curious reader will turn to d'Holbach's essay, he will find that those present-day philosophers, who proclaim their ideas of the nature of things from the house-tops, as things never thought of or imagined before, might have found almost every one of them, ready for the market, in that remarkable performance. We are not afraid that the faith of our readers will be disturbed in the least by the reasoning of the eccentric baron, although not one of our modern philosophers, who are so ambitious to be known as atheists, approaches him in eloquence. We will, therefore, extract a passage or two, just enough to show that the most important

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\* *Dict. Philosophique*; Art. *Philosophie*.

of the great discoveries alluded to are at least more than a century old—that is, assuming that no such persons as Heraclitus, Zeno, Epicurus, etc., had ever lived. Discussing the phenomena of animal and vegetable life, the Baron proceeds: “Of the power of nature it is impossible for us to doubt; she produces all the animals that we see, by the help of combinations of that matter which is *in incessant action*; the adaptation of the parts of these animals is the *result* of the *necessary laws* of their nature and of their combinations.”\*

Further on, the philosopher becomes more and more bold and enthusiastic. “Let me not be told,” he says, “that we have no idea of a work without having that of the artificer distinguished from the work. *Nature is not a work*; she has always existed of herself. Every process takes place in her bosom. She is an immense manufactory, provided with materials, and *she forms the instruments by which she acts*; all her works are *efforts of her own energy*, and of agents, or causes, which she frames, contains, and impels. Eternal, uncreated elements—elements *indestructible, ever in motion*, and combining in exquisite and endless diversity—originate all the beings and all the phenomena that we behold; all the effects, good or evil, that we feel, etc.†

It has been claimed for our modern philosophers that they evince great modesty and humility in speaking of the species to which they belong themselves. But, more than a hundred years ago, the admirers of d’Holbach claimed that he was equally modest and humble; and that they had as good reason to do so as those who think like them at the present day may be easily seen. Omitting the more objectionable part of d’Holbach’s argument on this branch of his subject, we quote a passage which will be sufficient for our present purpose: “In this being (man), possessed of feeling, intuition, and reason, which considers itself as the perpetual object of divine partiality, and forms its god on the model of itself, we see a

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\* *Système de la Nature*, Part ii.† *Ibid.*

machine more changeable, more frail, more liable to derangement, from its extraordinary complication, than that of the coarsest and grossest beings."\*

Had our philosophers turned to the thinkers of Italy, they could have found sufficient in the works of Machiavelli alone, in support of the theory that we have no need for a God. The author of *Il Principe* (generally regarded, by moralists, as one of the most pernicious books ever written) would have informed them that the only ruler to be recognized as exercising any control over mankind is Fortune. "When Fortune," he says, "*wishes to bring mighty events to a successful issue, she selects some man of spirit and ability who knows how to seize the opportunity she offers. So, also, when she wishes to cause destruction, she puts forward men to aid her in her designs. And, if there be one capable of obstructing them in the least, she either puts an end to him or deprives him of all power to do good.*"† It is true that some have not only interpreted this as referring to the Deity, but adduced it as an argument that Machiavelli was a believer in God. It is not for us to say that he was an atheist; but no fact is more clearly proved from his writings than that, in accepting Fortune as the ruler of the world, he did not mean any such being as a just or benevolent God. One passage will be quite sufficient for this. Thus, in his advice to princes, he proceeds as follows: "In my opinion, it is better to be hot and impetuous than cautious and circumspect, for Fortune *is a woman, and must be bearded and domineered over, if we intend to keep her under.*"‡

But, of all modern nations, Germany is the one which has furnished our English and American philosophers most materials to work upon in their peculiar way. Germany is the home of Infidelity at the present day, as France was more than a century ago. When the latter was remarkable for its impiety the

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\* *Système de la Nature*, Part ii.

† Machiavelli, *Dei Discorsi*, ii., ch. 29.

‡ "Perché la fortuna è donna, ed è necessario volendola tener sotto, batterla ed urterla," etc.—*Il Principe*, ch. 25.

former was remarkable for its piety. The Germans borrowed their impiety from the French, just as the English and Americans have from the Germans. But we have shown that it is by no means the greatest minds among those called French infidels who have called into question the existence of God, but those of the second, or, rather, of the third or fourth class. The same remark, but slightly modified, applies to the thinkers of Germany. We are aware that the general impression, both in this country and in England, is different, but the question admits of an easy solution. Thus, if we turn to the great scientific discoverers, we do not find among them one who has attempted to deny that the universe is governed by an All-wise Ruler. Kepler has not done so, neither has Leibnitz. We might mention many others, but these two illustrious names are sufficient. Were we to mention, on the other hand, the German scientists who have proclaimed themselves atheists, it would be generally admitted that, if they are stars of the scientific firmament, they can scarcely be said to be of any greater magnitude than the fourth or fifth. Indeed, most of them may be ranked among the telescopic stars.

Still more emphatically can a similar comparison be made between the different grades of philosophers. If it be asked who are the giants among the German philosophers, there are none capable of replying who will not mention Kant and Fichte. But Kant and Fichte are generally ranked among the Infidels. Moreover, they are infidels in a certain sense. But, precisely because they are true philosophers, instead of proclaiming to the world that there is no God, they lose no opportunity of bearing testimony to His marvellous, omnipotent power. Thus, for example, Kant says: "We must not be surprised to find that even the *mightiest works of God* come to an end. Every thing with an end, beginning and origin, has the mark of its circumscribed nature in itself. The universe has, *by the excellence of its construction*, a permanence in itself which, according to our ideas, comes near to an endless duration."\* Speaking of the destructive

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\* *Aus der Allgemeinen Naturgeschichte und Theory des Himmels.*

convulsions which sometimes occur, the philosopher proceeds: "We must not lament the disappearance of a universe as a loss which Nature sustains. She shows her richness in a kind of prodigality, which, while some parts pay the tribute of evanescence, preserves it uninjured by unnumbered new generations in the circle of her complete whole. What numberless flowers and insects a single cold day destroys, but how little they are missed, though they are splendid specimens of Nature's labors *and of God's almighty workmanship.*"\*

There is nothing atheistic in this; nothing to unsettle the faith even of those whose faith is weakest. Nor is Fichte less encouraging than Kant, or more disposed to display his superior knowledge, while careless what tender scruples he may wound. "The surest means," he says, "to convince one's self of a life after death, is to act in the present so that one must wish it. Whoever feels that, if there is a God, he must look graciously on him, *seeks for no reasons against his existence, and requires none.* Whoever has offered up so much for virtue that he ought to expect indemnifications in a future life, such an one requires no proof of, nor does he merely believe in, the existence of such a life; *he feels it within himself.*"† But there are those who believe in a future life, and yet deny that there is a God. It is far from being so with Fichte. It will be admitted that no Christian minister could give utterance to his faith in the Ruler of the universe in more unequivocal language. "It is a mistake," proceeds Fichte, "to say that it is doubtful whether there is a God or not. *It is not in the least doubtful,* but the most certain thing in the world, nay, the foundation of all other certainty—the only solid absolute objectivity—that there is a moral government of the world; that to every rational being his determined place is assigned in this government, and his exertions are taken into account, so that every part of his destiny is the result of this plan, etc."‡

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\* *Aus der Allgemeinen Naturgeschichte und Theory des Himmels.*

† Brief. 1790. L. i., 74, 95.

‡ *Ueber den Grund unseres Glaubens, u. f. w.* 1798. S. 23.

But we need proceed no further in this direction. We have already shown that the greatest minds of the ancient and modern world have avowed their belief in an all-powerful First Cause and Ruler of the universe. Even those of this class, who have sometimes had their doubts themselves, have carefully abstained from communicating their doubts to the public—at least, to that portion of the public among whom they would be likely to produce pernicious results.

It is not the less true, however, that our atheistic philosophers have had abundant sources whence to draw their startling revelations. The reader has already been reminded of the materials furnished by the ancient philosophers. Lest these may not be considered sufficiently plain—in order that the claim of originality for the theories and doctrines alluded to may be seen to be out of the question—we proceed to show what views had been promulgated in modern times, before Spencer, Huxley, and Tyndall became the great oracles which they are now so generally regarded by that portion even of the intelligent public which has not the taste, or, perhaps, the time, for investigation or research. It will be remembered how much has been said of late about the wonderful effects of the most trifling alterations in the human brain. The acumen displayed in this discovery by our new philosophers has been regarded by some of our “scientific” newspapers as something bordering on the miraculous. Yet that discovery has quite a respectable antiquity, even though it be admitted that Heraclitus or Zeno knew nothing about it. At all events, we need go no further back for it than the time of Herder, who died at the beginning of the present century (1803). “Great mother Nature,” says Herder, “to what trifles hast thou knit the fate of our race! With *the altered form of a human head and brain, with a little change in the structure of the organization and nerves*, which the climate, the breed, and habits *produce*, the fate of the world also changes the sum total of that which everywhere on earth man does, and *humanity suffers!*”\*

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\* *Philosophy of History*, Part ii., p. 30.

Even the great modern naturalist furnishes numerous hints for lectures like those which have created such sensations of late. We need only quote the following as an illustration: "All organized nature, plants, all animals, and man, *owe their primary existence* to an infinity of living *organic atoms, or molecules*, ready to *receive and adopt* them. If these produce not new organized beings, it is *because there is already a sufficient number of existing beings to receive and absorb them.*"\*

In this brief passage we have more than the germ of the "protoplasm," "primordial form," "cell," etc., of our present-day philosophers. But where did Buffon find it? Whence came his "atoms" and his "molecules?" Let the reader interrogate Lucretius, Plutarch, Cicero, or Seneca. Any of these will force him, at least, to smile derisively, if not to laugh, at the pretended originality of the "protoplasm" idea.

But we are told that all life is but the effect of machinery. We are expected to believe that this is a new discovery, for, although Descartes regarded the lower animals as machines, that philosopher claimed a higher nature for man. Büchner has, however, removed all difficulty on that point. "Life," says that sufficiently "advanced" philosopher, "is a peculiar and most complicated form of *mechanical action*, in which the usual mechanical laws act under the most *unusual* and varied conditions, and in which the final results are separated from the original causes by such a number of intermediate links that *their connection is not easily established.*"†

But this is not all. Büchner has much more to say on the "protoplasm;" he adduces more reasons, such as they are, why we should dispense with God, or regard a First Cause as needless, than all the atheists of antiquity whose doctrines have come down to our time. "The facts of science," he says, "prove with considerable certainty that the organic beings which people this earth owe their *origin and propagation solely* to the conjoined action of natural forces and materials;

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\* *History of Man*, 1797.

† *Force and Matter*, p. 151.

and that the gradual change and development of the surface of the earth is the sole, or at least the chief, cause of the gradual increase of the living world."\*

We might fill pages with similar arguments, taken from Büchner, in proof of the non-existence of any such being as a Divine Artificer of the universe. But the above will be sufficient to show how hackneyed those ideas have become in Germany and France, which have been put forward in England and America, within the last two or three years, with a much greater flourish than Newton allowed himself to have recourse to, in announcing to the scientific world his discovery of the law of gravity.

Another recent utterance, which has startled a large number of innocent and pious people, is that every thought we express, or attempt to express, produces a certain wonderful change in the substance of the brain. But, for this and a good deal more of its kind, our philosophers had only to turn to the pages of Baron Liebig. Thus, for instance, that scientist proclaims: "*Physiology has sufficiently decisive grounds for the opinion, that every thought, every sensation, is accompanied by a change in the composition of the substance of the brain; that every motion, every manifestation of force, is the result of a transformation of the structure, or of its substance.*"†

This, it will be admitted, is abundantly materialistic; sufficiently demonstrative of the fact that, according to Liebig, there is no need of a God. And the works of that scientist are pervaded by similar arguments. We extract one passage more: "*All experience,*" says Liebig, "*teaches that there is only one source of power in the organism, and this source is the transformation of the living parts of the body into lifeless compounds. This transformation occurs in consequence of the combination of oxygen with the substance of the living body.*"‡

Who, among the innocent, has not been astonished, even within the last year, at the wonderful results accomplished by

\* *Force and Matter*, p. 151.

† *New Materialism*.

‡ *Chem. Ap. to Physiology and Pathology*.

oxygen? What an excitement Tyndall and Huxley have created by proclaiming, in their own ingenious, oracular way, just the very doctrines which we have just quoted from Liebig. Yet, so early as 1840, Prof. Lyon Playfair translated into English the most "advanced" of Baron Liebig's works.

But it was not necessary to borrow even from Liebig in order to obtain materials enough for a revelation which the public of the present day would consider sufficiently sensational. There was no need to go beyond Dr. Joseph Priestly, author of "Disquisitions on Matter and Spirit," and of various other learned, remarkable, and well-known works; although not one of our present philosophers was capable of forming an idea on any subject whatever, if born at all, when Dr. Priestly died (1804). But we will let the reader judge for himself. In his "Introductory Essays" to Hartley's "Theory of the Human Mind," Priestly entirely dispenses even with the soul in the living body: "If it be admitted, as I think it must be, for any thing that yet appears, vibrations in the human brain may accompany and *be the cause of our ideas*, there remains only *one property* of ideas, or rather *of the mind, relating to them*, to which, if the doctrine of vibrations can be supposed to correspond, the whole theory will be established, and that is *the association of ideas*. For it will be seen that this single property comprehends all the other affections of our ideas, and thereby *accounts for all the phenomena of the human mind*, and what we usually call its different operations with respect to sensations and ideas of every kind." Lest all this might not be sufficiently plain, Dr. Priestly proceeds: "It will stagger some persons that so much of the business of *thinking* should be made to depend upon *mere matter*, as the doctrine of vibration supposes. For, in fact, *it leaves nothing to the province of any other principle*, except the simple power of *perception*. \* \* I rather think that the whole man is of some *uniform composition*; and that the property of *perception*, as well as the other powers that are *termed mental*, is the *result* (whether necessary or not) of such an original structure as the brain. Consequently, *that the whole man be-*

*comes extinct at death, and that we have no hope of surviving the grave but what is derived from the scheme of revelation."*\*

When these utterances were made, public opinion in England was very different from what it is to-day. Still more different were the views of government in regard to such utterances. In other words, freedom of thought has made great progress in England since the time of Priestly. While he wrote as above, the British Government was regarded, both at home and abroad, as one of the most intolerant in Europe, especially in respect to impiety. Several were prosecuted for it, and severely punished. But Priestly was not molested by government, simply because he had no ambition to obtain fame by proclaiming his atheistic views from the house-top. He confined himself to addressing, in the privacy of his chamber, cultivated, thinking men, whose minds are not easily excited or prompted to evil. But those alluded to were not the only ideas adopted by Priestly from the French radicals of his time. Of all Englishmen, his sympathy with the French Revolution, even in the midst of its cruelest excesses, was most warmly and conspicuously manifested. For this, and not for his impiety, he was persecuted by his countrymen. Thus it was that, in 1791, while he resided near Leeds, his native place, his house, library, manuscripts, and apparatus were burned by the mob. After this, he sought refuge at Hackney, near London. But here, also, he was persecuted for the strong sympathy which he continued to evince for the French Revolution; so that, finally, in 1794, he was compelled to emigrate to the United States. Wearied of the busy world, and its excitements, he settled in the quiet village of Northumberland, Pa., where he lived in complete seclusion, devoting himself exclusively to his scientific researches, until his death, which took place in 1804.

The philosopher, whose career is thus briefly glanced at, was the author of from seventy to eighty volumes, and

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\* *Introductory Essays to Hartley's Works.*

the discoverer of oxygen. No one can consider himself familiar with the history of English literature, or the history of the progress of science in England, who is unacquainted with the labors of Priestly in either field. Nor are any of his works better known than those in which he calls into question the existence of the human soul, as well as the existence of God; in which, in a word, he puts forward those identical ideas which have been declared so "startling," "bold," etc., as the utterances of our present-day philosophers.

But let us not be misunderstood. We have not the least disposition to depreciate the labors of any scientists or philosophers, no matter in what language or country they make their utterances. We merely want to show that, at least, that portion of the public which considers itself intelligent and enlightened should cultivate its memory, or remember the "advanced" thinkers of the past, much better than it does. Especially should those do so who, whether from the desk, the rostrum, or the pulpit, undertake to instruct all willing to be instructed by them. There would then be much less groundless apprehension, much less self-stultification, much less toadyism, much less charlatanism, and, above all, much less *plagiarism* than there is.

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ART. VI.—1. *An Inquiry into the Present State of the Circulating Medium of the United States.* By CONDY RAGUET, LL.D. New York. 1830.

2. *A Short History of Paper Money in the United States.* By WILLIAM M. GOUGE. Philadelphia. 1820.

3. *Considerations on the Currency and Banking System of the United States.* By ALBERT GALLATIN. New York. 1840.

THE direct aggregate losses suffered by this country through issues of paper money exceed treble the sum of the national debt. Not less startling is the fact that, from the

first emission of colonial currency by Massachusetts in 1690, to the last emission of national bank currency in 1875, on kinds of paper promises issued by a colony or a State, or the United States, have ever yet been redeemed in literal accordance with the terms upon which they were issued. After the manufacture of paper substitutes for money, follows repudiation. This has been either partial or total. Of course, every suspension of specie payments, for whatever cause, or however brief, is temporary or qualified repudiation. All paper money, whether colonial, continental, or bank bills, or treasury notes, is essentially the same. It consists in a promise, printed or engraved on paper, to pay the bearer a dollar, shilling, or pound, sometimes with, but generally without, interest. Every paper dollar, by whomsoever issued, is simply a promissory note, a due bill, evidence of debt, proof of the amount of real money owed. There is a difference in the degree of solvency of the issues; there is also a vast variety in the promises and conditions, with respect to time and mode of redemption; but, as these promises are never kept, the material fact is not their variety, but their uniform violation. With trifling exceptions, all American paper currency has been made practically, sooner or later, a legal tender.

The earliest bills of credit had their origin in debt and war. An expedition, sent by Massachusetts against the French and Indians in Canada, had unexpectedly returned without victories, rewards, or spoils. The troops clamored for pay. The colonial authorities had not a dollar in the treasury. Like other debtors, when hard pressed, they gave their due, or credit bills, to be accepted in payment of taxes when returned to them at a future day. The first issue of these bills was for £7,000.

Before the end of two years, £40,000 had been emitted. The amount issued and re-issued up to 1702 reached £110,000. The soldiers soon began to suspect that a printed assertion that a piece of paper was equal to money did not make it equivalent. They were found parting with their treasury notes at one-third discount. To inspire confidence, Sir Wil-

liam Phipps offered to exchange coin at par for the colony's paper. He vainly continued the exchange, until the contents of his private chest were exhausted, but not the paper.

To check depreciation, the authorities reduced large quantities of their return bills of credit to ashes. To feed the flames is the best use for paper promises that the wisdom of ages has yet devised. With the second charter of William and Mary commenced the emission of large volumes of new charter bills. In 1712, the provincial authorities made their due bills, that is, their debts, a legal tender for the payment of all debts. They also constituted themselves a bank, and loaned their bills, that is, the evidences of their own indebtedness, at five per cent. on real estate mortgages, the interest and one-fifth the principal to be paid annually. The borrowers kept their promises no better than the lenders. Some of these loans were unpaid for thirty years. Depreciation, of course, followed this currency inflation, and, as early as 1720, the bills of credit were at fifty per cent. discount. The paper money emissions of Massachusetts, exclusive of four large loans, had, in 1749, reached the enormous sum of £3,299,999. The bills of other provinces swelled the aggregate volume, Rhode Island alone circulating £350,000 of her bills in Massachusetts in 1743. History enumerates the evils that followed this earliest currency expansion. Specie, which began to go abroad in 1697, disappeared before the depreciation had reached fifty per cent. There existed no measure of values. All business was as hazardous as gambling, as uncertain as throwing dice. Fortunes vanished. While the rate of interest had advanced to twenty-eight per cent., orphans were paid eight per cent. in depreciated paper, on trust funds, according to existing contract. Change being scarce, one penny, two, and three penny paper tokens were issued. Counterfeiters swelled the volume of credit bills by joining parts of false and genuine bills together. The people even received and passed such bills, knowing them to be counterfeit, thinking, probably, that they were no more spurious than the lawful currency. In the midst of the extremest inflation, the General Court

solemnly enacted that, "because of the scarcity of money," the taxes assessed might be paid in pork, peas, flax, butter, beeswax, hides, mackerel, tallow, turpentine, and tar. "An empty treasury, a defenceless country, and embarrassed trade," is the picture which the Rev. William Cooper presents of this elysium of inflationists. The province still suffering for the want of "a medium," a land bank and a silver bank became rivals of the government in the business of printing paper money. The so-called silver bank issued £120,000 of notes, and redeemed rather more than half of them.

In 1738, New England currency was worth but one-fifth of its face in coin; and in February, 1739, sterling exchange was 450 per cent. in Massachusetts. The character of this medium of exchange, in 1744, may be learned from the Rev. James Allen, who describes it as "uncertain as the wind and fluctuating like the waves of the sea, and which lies at the mercy of every one to rise or sink at his pleasure." To put an end to this paper-money madness, the British lieutenant-governors, especially Governor Belcher and Governor Shirley, labored with ceaseless zeal. The receipt from the home government of 653,000 ounces of silver and ten tons of copper, to reimburse Massachusetts for assistance in the reduction of Louisburg, afforded an opportunity to get rid of the mountain mass of paper and return to a coin currency.

In 1750 and 1751, bills of credit of the old, middle, and new tenor, to the amount of £1,792,236, were "redeemed" at the rate of one dollar in silver for seven and one-half in paper! The current note had fallen to ten for one. This nominal redemption was a little better than total repudiation. Of these seven millions of paper dollars, the authorities made a bonfire. The flames warmed the dead body of the public credit into life. About an equal amount of provincial bills had been exchanged for other bills at a discount, had been lost, worn out, or scattered in other provinces, or had not been presented for nominal payment. The fact to be borne in mind is that, prior to 1752, more than £3,500,000 of paper money had been practically repudiated in a colony containing

a population of less than 50,000 when it began the perilous use of bills of credit, and less than 200,000 inhabitants at the date when the circulation reached £2,000,000.

In 1775, there was a revival of paper money as a legal tender, after the lapse of a quarter of a century. During the intervening period, the commercial prosperity of the colony had not been disturbed, except by the political strifes, demoralizing litigation, public and individual losses growing out of the attempted adjustment of the land bank's complicated affairs. The proprietors endeavored to pay off their indebtedness through the proceeds of a lottery. The people, probably thinking that the bank itself was lottery enough, did not respond. Under the mistaken impulse of patriotism, about £400,000 of legal-tender bills were emitted prior to the Declaration of Independence. This was in addition to the sum of \$2,750,000, the proportion of continental money assigned to Massachusetts in 1776. The existing laws were reversed, and the bills of all the other provinces were made a legal tender under the severest penalties. Depreciation set in, which the authorities imagined was caused by enemies of liberty, and such they characterized all who would not receive worthless promises as readily as silver.

The penalties and forfeitures of the colonies, the imprisonments and punishments of France for contempt of assignats, the penal edicts of Austria, and the fines and prosecutions of England, were not sufficient to arrest the depreciation of paper pledges, or prevent their ultimately becoming worthless.

The second American colony that emitted bills of credit was South Carolina. Here, as everywhere, paper money was the offspring of war and debt. Governor James Moore had conducted an expedition against St. Augustine, for the purpose of dislodging the Spaniards from Florida. The enterprise was unsuccessful. To meet its war expenses, the colony, in 1702, issued £8,000 of stamped credit bills. These were to be redeemed in three years with the proceeds of a tax on liquors, skins, and furs. They were not paid

in three years, nor at any time thereafter. A new emission followed, to defray the expenses of the French invasion, and in 1712 a large issue of so-called bank-bills was loaned to the people on real and personal security. This colonial loan-bank system was, perhaps, the most vicious system into which human stupidity has ever stumbled. It involved sudden and violent expansion to begin with, and then, as the interest and one-twelfth of the principal were to be paid in annually, business-depressing, price-shrinking contraction followed for the twelve years of loan-paying.

Instead of receiving interest for the government debts or securities which they held, the people were made to pay interest on what the government, in reality, owed them. The interest bearing and non-interest-bearing due bills having been made a legal tender, the series of financial blunders was complete. The larger the issues of paper money, the greater the clamors for more; and, although the population of the colony was only 14,000 in 1725, it put out new bills to the amount of £210,000 in 1736, and an equal quantity in 1746.

London merchants, the proprietors, and the most intelligent traders of South Carolina, complained to Governor Craven of the deplorable condition of the currency. Prices rose to an exorbitant height, increasing in a single year from five to six hundred per cent. After passing through all the intermediate grades of depreciation, the rate of exchange was at length fixed by law at seven pounds of paper for one of sterling money. Confusion in every kind of business prevailed. People lost all confidence in each other. The visionary paper-credit fabric seemed to involve all business in its own ruin.

In 1738 it required £800 of South Carolina currency to buy a bill of exchange for £100 on London. It soon fell as low as ten for one in coin. In the words of South Carolina's most intelligent historian, "A ship-load of such money would not procure for the country a regiment of auxiliary troops in time of war, nor a suit of clothes in any European market in time of peace." The last emission of provincial paper money

was in 1770, when £70,000 were printed to defray the expenses of erecting court-houses and jails.

It was fitting and proper to employ credit bills to build jails, when it was through the financial ruin they wrought that so many debtors and others got into the jails. During sixty-eight years, South Carolina emitted, and practically repudiated, £605,000 of paper bills; and yet the colony had but 40,000 white inhabitants in 1754. Adding to this about £1,400,000 of the Revolutionary currency issued by South Carolina prior to July 4, 1776, we have £2,000,000 as the paper-money contribution of this small colony while a dependency of Great Britain. Connecticut emitted its first colonial bills in June, 1709. This colony did not suffer so disastrously from the evils of irredeemable paper money, for the reason that the amount issued prior to the Revolution did not exceed £375,000. The colony wisely kept up a wholesome taxation, so that provision was made for calling in the earlier issues in one and two years. They were made a legal tender, except in cases of special contract, and were received in payment of public dues at 5 per cent. premium. The British Lords of Trade, in 1740, protested against the legal-tender feature of these credit bills, reminding the colonists that it was contrary to an act of parliament in the sixth year of the reign of Queen Anne. The tender-clauses were judiciously repealed. The Connecticut currency, however, sympathized with the depreciation of the bills of the neighboring colonies, and sunk, after the expedition against Louisburg, to one-fifth its nominal value. Dr. Benjamin Trumbull and other local historians have characterized this depreciating currency as a public fraud, because a constant tax on the sober and industrious, for which they received no benefit; as a source of oppression; of public and private injustice; and especially injurious to the morals of a people.

New York began issuing colonial paper money June 8, 1709, and increased the volume to £914,407. The pretext for these issues was necessity—a debtor's necessity to meet the heavy costs of war, and to supply the need of a circulating

medium. The bills were for a short period received at the treasury at an advance of  $2\frac{1}{2}$  per cent. from their date of issue, and were cancelled when paid in. They were to be accepted in payments of debts as gold and silver. Heavy taxes, including a tax on slaves, were levied from year to year, to provide a fund for the redemption of these bills. In 1737, New York went into the loan-bank business, and printed bills to be loaned for twelve years at 5 per cent. per annum. Quarrels of intense bitterness between Governor Clinton and the Assembly over supply-bills, and the creation and disbursements of paper money, resulted, as usual, in the triumph of the latter. The depreciation in this colony never much exceeded one-half, owing to the general repayment of the loans and the judicious cancellation of returned bills.

Rhode Island first engaged in the paper money manufacturing business in August, 1710. War debts and the scarcity of silver coin were the excuses for entering upon a system whose distracting influence brought disaster for a whole century upon the political, social, and commercial interests of the people. In 1715, a bank of bills, in the language of the times, was printed, and loaned to all borrowers willing to give five per cent. interest and mortgage security for the return of the principal in ten years. This was simply an invitation to every spendthrift, and to all the inhabitants, to get in debt by mortgaging their property, when the true policy was to get out of debt and stay out. To encourage borrowing, the interest on loans was made payable in hemp and flax.

Whenever funds were needed by the treasury to meet current expenses, the printing-presses were started, and the required sum struck off. How easy! How simple! No tax collector; no taxes. In 1742, the depreciation had reached eleven pounds for one of good money!

In 1755, the emissions were swelled to £240,000 in one year, and this in a colony whose population was estimated for the same year at 30,000. Memorials from the merchants of Newport, setting forth the ruinous tendencies of paper bills, were unheeded. The orders of the British Council for-

bidding such emissions were disregarded. More money was demanded by the multitude of debtors who wanted to get rid of the obligations of debts without paying them. Excuses were never lacking for increasing the currency. There were French and Indian war debts to be paid, forts, jails, and court-houses to be built, and, of course, always a scarcity of coin after an inferior currency had driven it out of circulation. Political parties were divided on the paper-money question, but, as a majority of the legislators, as well as voters, were debtors, the inflationists carried the day.

When Massachusetts got rid of her rotten paper money, and had returned to a coin currency, the West India trade of New England passed at once to Boston. Before this, it had been carried on exclusively through Newport. What more striking historical illustration of the effects of irredeemable paper upon the commerce of a colony or country. In 1764, the earlier issues of old tenor bills were received in payment of taxes at the rate of  $23\frac{1}{3}$  for one of lawful money. About the same time the courts decided that one Spanish milled dollar was equivalent to seven pounds of old tenor bills of credit. In other words, the old Rhode Island currency was worth less than five cents on the dollar, and soon ceased to be useful except as cigar lighters. The total aggregate issues to the date of Independence was £1,194,570. The colony of New Jersey passed through a paper-money experience quite similar to that of New York. There was this difference, however, that in New Jersey executions for debt were stayed until the Assembly could vote a new issue of paper money, which the creditor was compelled to accept in payment of his dues. The bills were made a tender under harsh penalties, and for altering or counterfeiting them the punishment was death. Though printed for the most part by Dr. Franklin, they were so coarsely and clumsily executed that the counterfeits, of which there was an immense flood, could not be distinguished from the original bills. The total amount emitted by the colony was £900,000. The amount was kept down because of the persistent opposition

of the colonial governors and the British Government to all loan banks and paper legal tenders, on the substantial ground that they were alike ruinous to the interests of British merchants and destructive to the colonial trade.

In 1712, the colony of North Carolina being in debt, on account of the Indian wars of the year before, concluded to make its evidences of debt a circulating medium. The colony's bills of credit, as well as those of South Carolina, then in circulation, were made a legal tender for the discharge of all debts payable in rated commodities. There was no provision made by special tax or sinking fund for the redemption of these promises. No fund for payment nor time for payment was provided or specified in the note for immediately subsequent issues. The old emissions were redeemed with new emissions and promises to pay. The latter were to be received by all whom the colony owed at par, but not from those who owed the colony. If a member of the Lower House made a motion derogatory to the credit of the new bills, he forfeited his right to sit in the Assembly.

Counterfeiting was punished with whipping, pillory, the cutting off of ears, branding with hot irons, and was declared felony, without benefit of clergy. The inevitable loan-bank system was adopted, which, of course, robbed the currency of the essential function or office of all good money to measure values accurately. Notwithstanding the immense issues of paper, there was such a scarcity of money that warehouses were built in each county in which to store pitch, tar, turpentine, rice, and other articles received for taxes in kind. In 1747, the paper in circulation, called old proclamation currency, passed at the rate of  $7\frac{1}{2}$  for one, and was exchanged by the authorities on these terms for the new issues. A poll-tax and a tax on wines and spirituous liquors was imposed to provide a fund for sinking the accumulating paper. Nevertheless, it depreciated to one-tenth, and subsequently to one-fourteenth its face value. The colonial period, during which North Carolina issued £400,000 of bills of credit, was a period of perpetual fluctuation in prices and exchange, through which

commerce was corrupted in its sources, and confusion in expressions of value made universal.

Pennsylvania began the emission of colonial currency in 1723, in the face of determined opposition on the part of the most intelligent classes. The experiments with paper in other colonies had resulted disastrously. But borrowers abounded, and they were given the privilege of going in debt on agreeing to pay back one-eighth of the sum borrowed, with interest, each year. These loaned bills of credit were made a lawful tender, under severe penalties and forfeitures, and were to be received as coin in all payments.

Although counterfeiting this paper was punished with loss of ears and being sold into slavery, counterfeit bills exceeding the amount of notes in circulation were printed in Ireland and imported into the colony. The larger colonial issues were made in contravention of the instructions of the Lords of Trade, through the influence chiefly of Franklin, who enjoyed for thirty years the profits of printing these paper promises. During the five years succeeding Braddock's defeat, the emissions reached almost half a million pounds. These excessive issues were ineffectually resisted by the royal governors. Those of 1775 bore the appropriate device of the Walnut Street Jail, which they were printed to erect. This jail, when the British held possession of Philadelphia, became a kind of Libby Prison, in which captured Americans were tortured. Robert Morris died here while incarcerated for debt, after the loss of credit and fortune. The aggregate amount of Pennsylvania colonial bills was £1,300,000. A depreciation of more than one-half was prevented by continued taxes and excise duties for their redemption and by judicious cancelation.

Maryland added £350,000 to the paper currency of the colonies. The value of the currency fluctuated from four to fifty per cent. discount. To remedy the embarrassment to trade, arising from the fluctuations in the value of the credit bills, the Legislature, in 1732, made tobacco a legal tender at one penny a pound, and Indian corn at twenty pence per

bushel. Taxes on bachelors, negroes, and Irish servants did not seem to produce a fund sufficient to redeem the paper bills, or revenue enough to dispense with their emission and use.

Placing the paper-money emissions of the small colonies of Delaware, New Hampshire, and Georgia, at £500,000 in all, we come lastly to Virginia, whose issues between May, 1755, and July, 1776, exceeded one million pounds. There was no lack of coin for currency in the early history of this colony. The people set to work to raise tobacco and other products which would bring cash in the world's markets. Specie can always be had, when there is something valuable to be exchanged for it. England loved tobacco more than gold.

Like human slavery in ancient days, paper money in recent times seems to be one of the ruinous incidents of war. To meet the expenses of the ill-fated Braddock expedition, and to pay for the scalps of Indians, was the use to which the first credit bills were put in Virginia. They bore five per cent. interest, were lawful tender, and, although counterfeiting them was punished with death, they were counterfeited to a fearful extent. They were an imperfect instrument of exchange, because issued at different dates, and, bearing interest from date, the nominal pound of no two issues was of the same real value. Mutilated or defaced bills were not redeemed, that is, exchanged for other bills. The emissions having reached £350,000 in a single year, of course, they became worthless as a measure of value, and made, as Jefferson says, "a lottery of all private property."

To recapitulate in brief, the American colonies, prior to the day from which we date our independent existence, issued thirteen million pounds of bills of credit. Adding to this twenty million dollars the amount of continental bills put out prior to July 4, 1776, we find that the paper money emitted and substantially repudiated before our separation from Great Britain reached the frightful sum of *seventy millions* of dollars.

Viewed in the clearer light of the principles of the economic sciences, as understood at this day, it does not appear that a necessity existed for the manufacture and use of

a paper currency in the colonies. Had the policy of England and her colonial authorities been guided by the accepted maxims of political economy, the supply of a circulating medium would have come through natural laws operating in trade and commerce. The precious metals flow like the waves of the ocean to fill up the currency level to the uniform height of the great circulating sea. Had all the colonists exhibited the exceptional wisdom of Roger Williams, William Penn, and the first Lord Baltimore in dealing with the Indians, and had they been employed in producing wealth, instead of destroying it in interminable wars, a sufficient quantity of exportable products would have been produced, to exchange for all the silver and gold actually needed for a medium of circulation.

The earth, the forests, the streams, and inland seas afforded articles of commerce, which civilized nations wanted and were willing to pay for in gold. And, had England left commerce with the colonies absolutely free, had she allowed them to sell in the world's highest markets, and buy in the cheapest, had she placed no restrictions upon their liberty to trade beyond their own inclination and interest, there would have been no lack of specie, because no lack of products for which the world was willing to exchange specie. Values would then have been measured with coin, not with debts or due bills.

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- ART. VII.—1. *Catalogus novus generalis stellarum duplicium et multiplicium.* (*New General Catalogue of Double and Multiple Stars.*) STRUVE. 1827.
2. *Etudes d'Astronomie Stellaire.* STRUVE. 1847.
3. *Stellarum fixarum, imprimis duplicium et multiplicium, Positiones medice.* (*Of the Fixed Stars, especially Double and Multiple.*) STRUVE. 1852.

BENEFACTORS of the human race are more numerous than the term as ordinarily used would imply. Instead of being limited to the comparatively few to whom it is applied, every

person that draws from nature in any way, either by his intellect or his hands, for the good of mankind, is a benefactor. Thus, the day-laborer is often a greater benefactor of his race than the minister, the doctor, or the lawyer. Indeed, the hard-fisted farmer and the honest, industrious mechanic are to be classed among real benefactors. But the hand is weak and the mind is powerful, and he, who by the strength of his intellect is able to control the forces of nature and make them do the work of a hundred hands, does still more good for his fellow-man, than he who is able to use and control but one pair of hands.

There is another class of minds, however, that are superior to any that we have mentioned above; and although their exertions for the good of the race are not so directly and immediately felt as those of the other persons to whom we have referred, yet their labors for the ultimate good of the human family are far more powerful in their effects than any of the others. We refer to those original investigators who study the phenomena of nature to learn her forces and their laws of action. The practical man uses what the man of science places within his reach.

Frederic George William Struve, whose life and labors are the subject of this article, belongs to the class of original observers, though, in many respects, as is often the case, he was also a practical man. M. Struve was one of the most eminent astronomers and geodesists of the age just passed away. He was born at Altona, in the Duchy of Holstein, April 15, 1793. His father, Jacob Struve, was, himself, a fine scholar and teacher, and for forty years he held the directorship of the high school in that city, an office which he filled with great distinction. He had a widely-extended reputation as a classical scholar and mathematician. M. Struve's mother was the daughter of Pastor Stinde who went to Russia as chaplain to Peter III. This circumstance afterward led to the settlement in Russia of many of the Struve family.

Jacob Struve was a man of sufficient practical common sense, not to attempt to force his son into a precocious men-

tal development, but on the contrary he allowed his physical powers to gain sufficient strength and endurance to enable him to undergo the labors of the schools which he attended. At the proper time in the course of his studies he was removed to the high school, where he made such advances in his studies that at the age of fifteen he was prepared to enter the university. They were in constant fear of the French conscription, and the parents of young Struve decided in 1808 to send him to Russia, a country at that time comparatively quiet. William's elder brother, Carl, was at that time classical lecturer in the University of Dorpat. This institution was founded in 1802 by the Emperor, Alexander I.

In accordance with the wishes of his father, William Struve applied himself exclusively to classical studies. The advantages to a man of science of having a knowledge of several languages, especially of modern languages, are very great; and even the dead languages are sometimes scarcely less serviceable. Young Struve gained his first literary honors by the preparation of an academical exercise, "*De systemate metrico apud Alexandrinos.*" This essay, which also was honored with a prize, was printed at the expense of the university. These early classical studies were subsequently of the highest importance to Struve, by enabling him to express himself accurately in the Latin language, and in this way communicating the results of his scientific labors to men of science in other parts of Europe, where the German language, Struve's native tongue, was, at that time, but little understood.

In 1811 Struve took his first university degree in philology. Having now fulfilled his father's wishes, he devoted himself to the study of that department of science, which was henceforth to be the great object of his life. Struve, like many others who would gladly devote their time and talents to the study of nature, was in straightened pecuniary circumstances; but his friend, Professor Parrot, scientific lecturer in the university, saw in his young pupil a person of unusual talent, and the representation which he made to the university authorities, was the means of enabling Struve to continue

his studies in the institution for a still longer period. From the age of fifteen the young student ceased to be a burden to his parents, whose means were rather limited. In order that he might relieve them from the necessity of supporting him while attending the university, soon after he entered there, he applied for the post of private tutor in the De Berg family, a wealthy nobleman of Lirland, and he was so fortunate as to obtain it. His first pupil was the Count de Berg, afterward viceroy of Poland. This arrangement as private tutor brought not only its advantages but its disadvantages. He was debarred from a regular attendance on the lectures of the place; but this, instead of discouraging him, rather served to stimulate him to greater exertions, and to make the best of his opportunities.

In 1811 Struve passed to the class in astronomy. Huth was the professor of that branch of science at the time, and Struve always cherished with fondness the recollection of his great worth and eminent attainments. Owing to feeble health, Huth was unable to assist his pupil very much, and Struve was obliged to depend largely on his own exertions and ability. The professor rarely visited the observatory, but he permitted Struve to make such use of it as he could. It was not very well supplied with instruments at that time, and such as were there were scarcely in a condition to be used. The transit instrument was made by the English optician Dolland, and the excellence of the object-glass attracted Struve's attention. The instrument had never been mounted, and the body of the telescope was still in the case where it had been packed. Young Struve was anxious to fit it up for making observations, but he could obtain no adequate assistance in the city of Dorpat. He was, therefore, obliged to rely wholly on himself. Though he was without previous experience in such work, yet the transit was well fitted up. At this time Struve was only eighteen years of age, and he afterward recalled with satisfaction the fortunate difficulties under which his first efforts were made.

In 1813 he had taken his degree of Doctor of Phi-

losophy, and on that occasion he wrote his first memoir on an astronomical subject—*De Geographica specular Dorpatensis Positione*. In this paper he gives the first determination of the longitude of the observatory, deduced from occultations of stars by the moon, which he himself observed during the preceding year. He was soon after (November, 1813) appointed extraordinary professor of mathematics and astronomy, and, two years afterward, upon the death of Huth, he was chosen to fill the ordinary professorship. It was now his duty to attend to the observatory, lecture on astronomy, and also the higher branches of mathematics. It seems more than probable that he was not able to discharge to his entire satisfaction all the duties thus devolved upon him. This state of things continued till 1822, when the two offices were separated, leaving Struve to devote his whole time and talents to the proper work of the observatory.

We do not believe that the human mind is so constituted that it needs only a powerful stimulus to direct it successfully into any given channel; yet we are sometimes able to point out the circumstances and the object which seemed to arouse the latent powers of the mind, and set them moving in the direction marked out by nature. Struve's mind was thus naturally adapted to the study of practical astronomy and geodesy. As early as August, 1811, he was able to verify the orbital motions of the components of the double star *Castor*, which had been predicted by Sir William Herschel in 1803. This observation seemed to open to him the great field of sidereal astronomy, and the rich harvest which was there ready for the reaper. About the same time, while he was spending the summer at the house of his friend, M. De Berg, Struve's attention was drawn to the science of geodesy, and the success of his first attempt at making a geodetical survey appears to have laid the foundation for that great work of his life, the survey of a portion of the Russian empire. His instrumental means were very limited, yet he made excursions in the neighborhood of his friend's house in order to see if it were not possible to make a triangulation of

that part of Lirland. While practising himself in the use of the sextant, he was mistaken for a French spy by the Russian army then in Lirland, and, notwithstanding his protestations, he was marched off a hundred miles as a prisoner to headquarters, where with some difficulty he was liberated by the commander-in-chief, with the understanding that he was not thus to expose himself to suspicion again. His geodesic work proper did not commence till three years after the event to which we have just referred. Of this work, however, we shall have more to say in another part of this article.

Although the instrumental means at Struve's command were very limited, yet he employed such as the observatory afforded so skillfully and successfully that he soon attracted the notice of the Russian Government. Through the influence of the chancellor of the university, Prince Lieven, and as an acknowledgment of Struve's services, the observatory was soon furnished with such instruments and pecuniary means as caused it to take rank among the first in Europe. The Emperor Alexander, in making the appropriation for the instruments which he needed, directed that Struve should order them in person. In 1820 he made a journey to northern and southern Germany, and having visited the most distinguished machinists, and discussed with them the details of the new instruments, he returned to Dorpat to await their arrival. In 1821 he received from Reichenbach and Ertel the meridian circle, and in November, 1824, the celebrated Fraunhofer refracting telescope was received. This gigantic instrument (for that period) was the masterpiece of the famous artist, Fraunhofer.\* It was not long idle in the hands of Struve, for in the following February he commenced with it a review of the heavens, the results of which were published in

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\* The aperture of this fine instrument is nine and a half English inches, and its solar focal length about fourteen feet. Its magnifying powers range from 175 to 700. "This instrument was purchased," says Struve, "for 10,500 florins" (about 4,500 dollars). "a price which covers only the cost of construction."

1827 in his "New General Catalogue of Double and Multiple Stars."

At first, Struve worked alone in the observatory, except occasionally some volunteer assistants from among his pupils. In 1826, however, he obtained a permanent observer, M. Preuss, who gave his attention to the meridian circle, and this arrangement enabled Struve to give his time to the great refractor in the observation of double stars. In order that the reader may the more readily understand what was actually accomplished by Struve, it will be necessary to review briefly the state of sidereal astronomy at the time of his reception of the Fraunhofer telescope.

Naked-eye observations show us that at least a few stars are in close proximity to other stars, like the two, a large and small one, in the tail of the Great Bear. Soon after the telescope was applied to celestial observations, others, which appeared to the naked eye to be single, were found to be double. One of the stars in the Great Bear, to which we have referred ( $\gamma$  Ursæ Majoris), was found by Riccioli, about the middle of the seventeenth century, to be itself a double star.\* Hooke, soon after, found  $\gamma$  Arietis also to be double.† Discoveries of double stars continued to be made throughout the eighteenth century, though no systematic search for them was made. In 1779, however, Sir William Herschel turned his attention to the subject, and with this great observer dates the most of our knowledge of double stars. Previous to this, Michell had suggested that there was probably a physical connection between the components of double stars.‡ Observations did not decide this question, however, till a good many years afterward. The solution, like many others, was reserved for Sir William Herschel. In two papers communicated to the Royal Society of London, § he has shown that the relative position of the components of a good many

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\* *Almag.* Nov., tome i., part i., p. 422.

† *Attempts to Prove the Motion of the Earth*, p. 7, 1674.

‡ *Phil. Trans.*, 1767, p. 234.

§ *Ibid.*, 1803, p. 239, *et seq.*; and 1804, p. 353, *et seq.*

double stars had undergone a sensible change in the interval of twenty years. He assigned the lengths of the periods of revolution in several instances, which he left to be verified by subsequent observations, either by himself or others. We have already mentioned the fact that Struve, in 1811, verified, in respect to the double star Castor, Herschel's prediction. For several years the knowledge of double stars was not much advanced beyond what Sir William Herschel himself did. This was in part due to the want of suitable optical means for making the requisite observations, and in part to the novelty of the views set forth by that great astronomer. In 1816 Sir John Herschel commenced a review of his father's double stars, but his progress was rather slow, owing to the difficulties which he had to encounter.

In the year 1819, Struve began at Dorpat to make a somewhat consecutive record of the angles of position and the relative distance of the components of double stars. Previously, the positions of the stars in the heavens, their right ascensions and declinations, had been observed. His first catalogue of seven hundred and twenty-seven double stars, arranged in the order of right ascension, was published in 1820, and this had the effect to direct attention to the subject as one of general interest.

A great many double stars are, without much doubt, only apparently so, being two stars at unequal distances from the earth, and in nearly the same line of vision. But the number of double stars which have a closer physical relation, or which revolve around their common centre of gravity, is not small. Stars of this character are called binary stars. It will very readily be seen that, in order to discover such bodies, something more than their right ascensions and declinations must be observed. The orbital motions of the members of such a system could not, without great difficulty, be in this way discovered. The orbital motion can more easily be determined by measuring the relative distance of the components and their angle of position; that is, the angle formed between the line joining the two components of the star, and a known

line, as one running north and south, or east and west. A re-measurement of these elements would show, it is evident, whether any perceptible change had taken place in such a way as to indicate a physical connection and a motion of revolution.

We have already referred to Struve's publication of his great work, *Catalogus novus generalis stellarum duplicium et multiplicium*, in 1827. In this are recorded the positions, in the order of right ascensions, of 3,112 double stars, 2,343 of which had not been previously observed as such. With a given number of stars it is possible to calculate, by the theory of chances, what is the probability that any given amount of them, if the whole of them are scattered at random over the heavens, or any portion of them, will be situated within a given distance of one another in pairs, or in any other way. Struve has shown, in his catalogue of 1827, that the class of double stars whose components are within 4" (four seconds) of each other, exceeds in number out of all proportion what might be expected from the theory of chances. This fact is an evidence of a physical relation between the components. We may here remark that subsequent observations, by Struve and others having the use of more powerful instruments, have confirmed this conclusion. In the formation of this catalogue of double stars, Struve informs us that he examined no fewer than 120,000 separate stars. This statement will enable the reader to judge of the immense amount of work it must have required to complete it.

The work, to which we have just referred, was followed by another in 1837 of still greater magnitude, *Stellarum compositarum mensuræ micrometricæ*. In this work he has given the results of his measurements of the angles of position, relative distances, magnitudes, colors, right ascensions, and declinations of all the objects mentioned in the former work, each one resulting from several nights' observation.

Ten years later, he published his studies in stellar astronomy. In this work he has made a series of calcula-

tions based on the number and distribution of stars of sufficient brightness to be catalogued, and also on the star-gauges of Sir William Herschel,\* in which he considers the relative density of the stars on the north side of the galactic circle, or the plane of the milky way (a kind of natural equator of the heavens), with respect to that plane. He finds a gradual increase in the number of stars in a space of a given magnitude, as we approach the galactic plane. This result has been confirmed by Sir John Herschel's researches in relation to the stars on the south side of the same plane.

In the same work,† Struve has given some speculations on the *extinction of light* in its passage through space, to which he was led by his considerations on the law of the distribution of stars which constitute the visible universe. In the sixteenth century, Jordano Bruno asserted that the universe is peopled with an infinite number of self-luminous bodies, or suns. The discovery, by means of the telescope, of innumerable stars which are invisible to the naked eye, led to speculations, by certain minds, on the probable effects on the appearance of the heavens as an infinite universe of self-luminous bodies. In a paper in the *Philosophical Transactions* for 1720, Dr. Halley has discussed the subject, and he arrives at the conclusion that an infinity of suns would not cause the heavens to appear materially different from what they do.

The Swiss astronomer, Chésaux, arrives at a different conclusion. He thinks that an infinite number of shining bodies would cause the heavens to appear in all parts as bright as the sun. He concludes that our choice is between the imperfect transparency of space or the abandoning of the idea of an infinite universe. Suppose the stars to each give out the same amount of light, and that they are all at the same distance from one another and from us or our sun. The first stratum of stars, or those which are nearest, would give us a certain amount of light; the next stratum would be

\* See N. Q. R., No. 47. p. 146.

† Etudes d'Astron. Stellaire.

as far again away, but there would be four times as many stars, so that their combined light would be equal to the light of the first stratum; for similar reasons the third stratum would give us as much light as the first, and so on for the others, so that this reasoning would lead us to the conclusion that an infinite universe would cause the heavens to appear as brilliant as the sun. But the stars are neither equal in brightness nor in distance, still we must conclude that the constitution of the stellar universe is such that the whole heavens would appear like the sun, if the universe were infinite in extent, and light were not extinguished in its passage through space. It seems to be reasonable to conclude that the force which causes the ether to vibrate so as to produce light, is not sufficient to propagate the waves to an infinite distance; and, besides this, the interference of the waves must also tend to the extinction of light. M. Struve bases his conclusion, that light is extinguished in its passage through the celestial spaces, on the fact that the computed space-penetrating power of a telescope, according to the usual principles, is greater than that indicated by actual observation. We have not room here to enter into the details of the reasoning which he employs in relation to this question which is still unsettled.

In 1833, the Emperor Nicholas resolved to have constructed a great central observatory for the empire of Russia. In December, 1830, Struve visited St. Petersburg, and in the January following, he had an interview with the emperor, in which they discussed the question of the best site for a new observatory. The emperor decided that the hill of Pulkova was the most suitable place for the great central observatory. In October, 1833, he gave the definite orders concerning the new institution. Dorpat, however, was not neglected, for Struve returned to it to find that its endowment had been largely increased.

In the summer of 1834, M. Struve made a fifth journey to Germany. He discussed the details of the instruments for the new observatory, with Ertel, of Munich, and Repsold of Hamburg. On the 3d of July, 1835 (the year of the re-

turn of Halley's comet), the corner-stone of the new structure was laid. In 1838, Struve made a sixth journey, and revisited Hamburg and Munich. He examined the new instruments—now nearly completed—and, after making a few minor improvements, accepted them as satisfactory. In the spring of 1839, he removed from Dorpat to Pulkova, and, on the 19th of August, the active work of the observatory was commenced.

Before taking leave of Dorpat, it may be well to refer briefly to some part of the work that was performed at that observatory, while the central observatory was in process of construction. We have already referred to the "*Mensuræ Micrometricæ*," published in 1837. In 1839 appeared a volume containing the observations made at Dorpat, in 1835, on Halley's comet. The sixth, seventh, eighth, and ninth volumes of the Dorpat *Astronomical Observations* contain the regular meridional observations, and their reductions for the years 1825–1841. Thus, we see that the Dorpat instruments were not idle. When Struve removed to Pulkova, Dorpat passed to the charge of Professor Mädler. Dorpat had been the school of practical astronomy for Russian officers and scientists, but, after Struve's removal to Pulkova, that observatory took the place of Dorpat as the scientific school. Some seventy Russian officers were instructed during the first quarter of a century of the existence of the observatory; and all of them have distinguished themselves, more or less, by their activity and ability. During the same time, about forty foreign and Russian professional astronomers availed themselves of the privileges offered by that fine institution.

It was decided not to publish an annual volume of observations at Pulkova, as is usual with observatories, but after having organized systems of specific research, which, from necessity, often extended through a series of years, the results of such labors were to be given to the world, when the investigations were regarded as completed, and then with the name of the particular observer attached to the work. Thus, a notice of the work of the observatory of Pulkova will be to

enumerate the works of the separate observers. Some of these we shall briefly mention. Several works, preliminary, to a certain extent, to some of the principal publications of Pulkova, were based on the Dorpat observations. In 1849 Lindhagen published a memoir on the constant of aberration deduced from observations on the Pole Star. These works are of much importance, since they established the authority of the "Pulkova Constants," as they are called, now generally used by astronomers.

In 1852, M. Struve published the work bearing the title, *Stellarum fixarum, imprimis duplicium et multiplicium, positiones medię*. Several other important works were published: Peters's "Researches on the Parallax of the Fixed Stars" (1848); Otto Struve's "Investigations into the Parallax of 1830," Groombridge (1850); of Alpha Lyrae (1852); and in 1849 and 1850, the Observations on the satellite of Neptune, and the deduction of Neptune's mass by Otto and August Struve (the former the son, and the latter the nephew of the great astronomer). We have now enumerated a sufficient number of works to show the reader the activity of the observations under the directorship of William Struve. The amount of labor performed by the eminent astronomer in connection with the observatory was, however, little more than half what he accomplished.

We have already mentioned that his attention was early drawn to the science of geodesy, and that while he was at work in the field he was mistaken for a French spy. Three years after this occurrence, at the invitation of the Economical Society of Lirland, Struve undertook to make a triangulation and map of the whole province. This work he accomplished with great ability, though his instrumental means were quite limited. This undertaking occupied the summers of the years 1816-1819. On the completion of this work, he made a proposition to measure an arc of  $3^{\circ} 35'$ , and his proposal was sanctioned by the council of the University of Dorpat. The Emperor Alexander granted the necessary appropriation, and directed Struve to order new instruments for the work.

That on the measurement of an arc of the meridian was scarcely finished, when Struve, in 1830, presented to the Prince von Lieven, the minister of public instruction, a memoir on the possibility of extending the arc northward to Finland. General Tenner had been measuring an arc to the southward, and his work and Struve's had been joined in 1828-1829, thus forming an arc of  $8^{\circ} 2'$ ; and by joining this to Struve's proposed arc of  $5^{\circ} 27'$  in Finland, would extend the work up to the arc measured by the French (Claivault and Mauportuis) in 1735, thus forming a continuous line of  $15^{\circ} 15'$ . The Emperor, Nicholas I., granted the sum which was thought to be sufficient to complete the work in Finland within ten years. Without entering into further details respecting Struve's geodesic work, suffice it to say that he conceived the grand idea of extending the measurement of the arc of the meridian from the Danube to the North Cape, and that it was actually performed from Ismail, on the river mentioned, to the Arctic Ocean near the North Cape, a distance of  $25^{\circ} 20'$ , or about 1,750 miles. The account of this work is given in the *Arc de Meridian entre le Danube et la mer Glaciale*, 1866.

Only a few arcs have been measured that are comparable to the great Russian arc. The French arc, extending from Dunkirk to Formentara, covers an extent of  $12\frac{1}{4}^{\circ}$  of latitude, or about 850 miles. The great Indian arc, extending from near Cape Comorin, the southern point of Hindostan, to the foot of the Himalaya mountains, is 1,477 miles in length, or about  $21\frac{1}{2}^{\circ}$ . To these we may add the arcs measured by the United States Coast Survey, which are not yet finished. These measurements have served to determine the figure and dimensions of the earth.

On the 19th of August, 1864, after the lapse of a quarter of a century from the inauguration of the observatory, there was a great gathering of astronomers at Pulkova, to pay their respects, and, as it proved, their last respects to the great man who had done such honors to their science for half a century. Some of the astronomers present on that occasion had been Struve's pupils, but were then occupying responsible

positions of their own. Struve was then in his seventy-second year, but the excitement of the occasion enabled him to recall in a measure the vigor of his prime of life, and thus to shake off for a time the enfeebling effects of a malady to which he had been for some time subject, and to thank those around him both for meeting him at that time, and for the kindness which they had always shown him while prosecuting his scientific labors in years gone by. Struve survived this friendly meeting but a little more than three months, for, on the 23d of November, 1864, he passed on to a higher life.

Struve was, as we might easily infer from the great amount of labor which he performed, a man of great physical strength and endurance. He attributed these qualities in part to gymnastic exercises in his youth. He is said to have remarked that, previous to the attack of his malady in 1858, he had not known from experience what it was to be sick. His physical condition was such that he was obliged to cease in a measure from his labors, which had been almost unceasing. Owing to his inability to discharge all the duties of director, he finally asked permission to resign his position as the head of the institution of Pulkova. His wishes were granted, and his son, Otto Struve, was chosen, in 1861, to fill the place of his father.

M. Struve was twice married; in 1815 to a German lady, by whom he had twelve children. His second wife was the daughter of his old colleague, Bartels, of Dorpat. By this lady he had six children. Notwithstanding his many labors he always found time to superintend the education of his children.

Struve was a man that never contested the priority of a scientific truth. He believed that such discussions not only disturbed the peace of one's mind, but that they were injurious to the progress of science.

- ART. VIII.—1. *Carthage and her Remains; being an Account of the Excavations and Researches on the Site of the Phœnician Metropolis in Africa, and other Adjacent Places.* By Dr. N. DAVIS. London. 1861.
2. *États Chaldéens, Assyrie, Mésopotamie, Médie, Babylonie, Phénice, Palmyre, etc.* By F. HOEFER. Paris. 1852.
3. *Mémoires sur les Phéniciens.* Par M. l'Abbé V. MIGNOT. Paris. 1786.
4. *Sur l'Origine et le Caractère Véritable de l'Histoire Phénicien qui porte le nom de Sanconiathon.* Paris.

ON inspecting the map of Europe, the reader may have remarked the peculiar position of two islands—Sardinia and Corsica—which, as it were, bridge the Mediterranean at that point, and establish a sort of coast-line extending from Tunis to Italy. Neither of these islands is of very great importance. Corsica is famous, principally, as the birthplace of Napoleon Bonaparte, and Sardinia appears to be of no account, except as having furnished a title for a certain species of laugh. But, if we look at these islands in connection with the history of navigation, and consider the early days, in which vessels without compass or chart were unable to venture into the open sea, but crept along the coast, guided only by its deviations, and, in stress of weather, taking refuge in the first accessible harbor, we shall realize that they must have played no unimportant part in the civilization, and even in the population, of the European continent.

We are confirmed in this theory by the records recently deciphered on the Egyptian monuments, where we find enumerated among the allies, the tributaries, and sometimes the adversaries of Egypt, the Sardinians, the Corsicans, and the Tyrseni or Etruscans, who inhabited the portion of Italy

adjacent to Corsica.\* We find also mention of the Pelasgi, who occupied the southern portion of Italy, as well as the peninsula of Greece, and the Sikels, or inhabitants of Sicily. Though these early nations have for the most part disappeared, relics are found not only of their occupations, but of many of their peculiar usages, and the similarity between these and what we know of the Egyptians would indicate for the early inhabitants of these regions, if not actually an African origin, a degree of intercourse with the people of that continent which materially controlled the character of their civilization. We can hardly imagine these early settlers to have approached through the arid deserts of Libya, and it is as little to be supposed that they penetrated in large numbers through the dense forests which covered the European continent. We may, therefore, infer that these were settlements planted by the early navigators who, voyaging from Phœnicia, followed the line of the African coast to Tunis, where, in after days, they established the colony of Carthage, and then, skirting the coasts of these islands, arrived at and peopled the adjacent regions of Italy.

That the Phœnicians were the earliest navigators of the world, and founded most of the colonies in the Mediterranean, is a fact too generally admitted to require argument; but, of the extent to which they had explored the ocean, and the knowledge which they possessed of the geography of the earth, we have no positive information, and are left to such inferences as we can draw from the earliest writers. It may, however, be safely assumed that whatever regions possessed human inhabitants were visited by these hardy adventurers, and that not a few of them received their first occupants from, or by the aid of their vessels.

The Mosaic genealogies represent the Phœnicians as the descendants of Sidon, the grandson of Ham, the son of Noah. This origin would make them a kindred race to the Egyptians, who were descended from Mizraim, another son of Ham. Egypt would, therefore, naturally be the first coun-

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\* Birch.

try with which they would open communication. It was the wealthiest of nations. A land trade was already extensively carried on between the Egyptians and the people of Asia, and the vast river which penetrated the very heart of their dominions, and on whose borders their mighty cities were erected, offered a safe and pleasant highway for the crafts which sought their shores. In a northerly direction the Phœnician navigators followed the coasts of Syria and Asia Minor, until they reached the Egean sea and visited the coasts of Greece, and thus brought their kindred of Egypt into communication with the Dardanians, the Lycians, the Teucrians, and other inhabitants of this region whose names appear on the Egyptian monuments,\* and even with the people of Greece, whom we find also mentioned as Achæians and Danaï.† In Greece the Phœnicians undoubtedly made one settlement—that of Bœotia by Cadmus—whose chief city, Thebes, was named after its Egyptian prototype—and were probably instrumental in bringing thither the families of Danaus and Cæcrops, and perhaps the Pelasgian settlers of prehistoric Greece. They also penetrated the Euxine, whether by means of the Hellespont and Bosphorus, or by some other channel no longer existing, must remain matter for conjecture.

To their recognized mercantile avocations the Phœnicians added another, by no means so reputable—piracy. It is certain that, whenever opportunity offered, they carried away women and children from the various countries which they visited, and sold them into other lands for slaves. Odious as was this practice, we can perceive how much good it indirectly effected by the dissemination of the knowledge and civilization of Egypt and Arabia throughout the ruder countries of the north. To this source we can undoubtedly trace many of the analogies which existed between the languages and customs of remote nations. Herodotus tells us that the oracles of Lybia and Dodona were established by priestesses stolen in this way by the Phœnicians from Egypt, and many humanizing influences were undoubtedly thus brought to bear on

\* Birch.

† *Ibid.*

these countries, which were, in a measure, civilized by their slaves.

But the Phœnicians did not limit their visits to the coasts of Egypt and Asia Minor. Following the windings of the African shore—though the inhospitable deserts of Lybia must have offered them few attractions—they reached the more inviting harbors of Tunis; thence they not only skirted the adjacent islands until they arrived at Italy and Sicily, but were eventually emboldened to pass beyond this point, and reached the limits of the Mediterranean. It is generally believed that they penetrated the Strait of Gibraltar, and that Tarshish (the distant port, the journey to and from which involved a voyage of three years, and to which Jonah took flight in the hope of escaping the presence of the God of his own land) was Tartessus in western Spain. However this may be, it is certain that Spain, renowned through ancient times for its beauty, its delightful climate, and its vegetable and mineral wealth, was a favorite site for Phœnician colonies. In the earliest times, it was known by the name of Iberia, which would indicate that its first colonists were brought thither from the coast of the Euxine, the residence of the Iberians of antiquity. All the discoveries in Spain indicate a long pre-Aryan occupation. Even in historic times, its indigenous inhabitants appear to have been a dark-skinned race, though very much blended with the supervening Celtic element. In fact, Carthage, the child of Phœnicia, to the last claimed Spain and the Spaniards as her own; and it is well known that the Punic wars, which terminated in the destruction of Carthage, grew mainly out of the conflicting claims of that city and Rome to Spanish domination.

It would be a mistake to limit the Phœnician explorations to the shores of the Mediterranean Sea. There can be little doubt that they visited the most northern latitudes, and brought home thence the wonderful accounts which Homer has preserved for us in the *Odyssey*, and which, though generally regarded as travellers' stories, or at least poetic myths, will be found on examination to possess a substratum of fact,

in many instances far less amplified by imagination than many travellers' tales of later date.

To comprehend the probable courses of the Phœnician navigators, we should consider the idea entertained in ancient times of the geography of the earth—ideas gathered principally from their voyages, and which, in many respects, may not have been so far from the truth as we are prone to believe. The earth they held, in common with their descendants and all mankind until a date thousands of years subsequent, to be a vast level plain of circular or elliptical form. Around the earth flowed the circumfluent *river* Ocean; and within it lay the wide, trackless sea, which was fed by the ocean stream, whose waters constantly poured into it through various mouths or straits. The sea, broken by islands and continents, covered the greater part of the earth's expanse. Spain with France and, perhaps, Britain attached, Italy and Greece, were large islands, or separate continents—probably the “isles of the Gentiles” mentioned by Moses. Water covered the valleys of the Rhine, Rhone, and Danube, and even the vast steppes of southern Russia. The Tuscan and Ionian Gulfs of the Mediterranean, as well as the Euxine, extended indefinitely to the north, where their waters blended in the neighborhood of the Baltic. In fact, all the region which we know as Central Europe formed in their geography one vast expanse of water, called by the Greeks *Thalassa*, or Sea.\*

To modern geographers this conception appears glaringly false; as undoubtedly it would be, did we suppose the earth's surface to undergo no changes in the course of ages. But science has indisputably established the fact that these changes have been in constant progress—that we have now water where there was once land, and land where there was water. The Sahara and other trackless and level deserts are proved to have, at one time, formed a portion of the sea; and the

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\* This is evident from the fact that Ulysses sails, or is driven by south-easterly winds, from the coast of Ithaca to Læstrygonia in the far north-west, and thence to *Ææa*, which must have lain to the extreme north-east, as it was near the land of the Cimmerians.

channel which divides the British Islands from each other and from Europe is generally supposed to have been once dry land. Investigations of their condition have led many geologists to hold that the valleys of the Rhine and of the Rhone were at one time united, forming the bed of a single river, and at a still earlier period constituted a vast open channel or passage of the sea. Now, the first Phœnician navigators lived at a very early period of the world—a period as to which history is absolutely silent. We can, therefore, easily perceive how they might have penetrated northern regions by this channel, without the necessity of venturing into the open ocean, or, at least, of braving the dangers of the inhospitable Gallic and Irish coasts.

To conclude that the Phœnicians established ports and colonies in Britain, from the fact that *Lud*, the name of the British capital, is mentioned in the Bible as one of their chief ports, may appear fanciful, but that they visited the regions of Sweden and Norway, and penetrated within Arctic latitudes, we may infer from various sources. To this, Homer bears an unconscious testimony in the intensely northern flavor of the myths with which he has garnished his hero's journeyings—myths which, we think, can be shown not to have existed so exclusively in the poet's imagination as has been commonly supposed.

To commence with the Læstrygonians. These are a race of people who are said to enjoy perpetual day, consequently their abode must have been, if not actually at the North Cape, at least sufficiently near that region to have in summer a period of continued daylight. Their abode is also far to the west, for, when the winds are imprisoned by Æolus for Ulysses's benefit, he gives him a zephyr to waft him rapidly to Ithaca. When the winds escape, the fleet is driven back to Æolia, of course by a wind the opposite of zephyr, and thence, a journey of seventeen days in all, to the Læstrygonian coasts.\*

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\* In antithesis to the Læstrygonians, are placed the Cimmerians on the sea of Azof, that is, far to the east, the region of perpetual night. Hence, we may infer that some Phœnician vessels trading on the Euxine must have been driven thither in winter.

This region is described as rocky, and indented by deep bays or harbors with narrow mouths, which it is easy to enter, but from which it is more difficult to emerge.\* This corresponds exactly with the Norwegian fiords. The Læstrygonians are cannibals and of gigantic stature. Here modern discoveries furnish us with a remarkable confirmation. There are caves in Norway full of human bones, evidently the bones of a race who became extinct long before the Aryan immigrations. The implements found with them indicate a low stage of civilization. The bones are of unusual size, and have in many instances been broken open by some knife or other sharp instrument, as if for the purpose of extracting the marrow. This indicates a huge, barbarous, and cannibal race as the primitive inhabitants of the region. May we not conclude that we have here the originals of the Læstrygonians, who devoured the companions of Ulysses?

A still more unmistakably northern character distinguishes the fable of the sirens. In all ages, visitors to Arctic latitudes have brought home legends of marine monsters, generally half woman, who sit on rocks half hidden by the waves, and sing strains of such ravishing melody that the sailors, entranced, forget to guard their vessels until, dashed on the treacherous breakers, they become the prey of their tempters. The Lorelei of the Rhine belongs to the same family. It would be idle, at this period, to conjecture in what natural appearances this fable had its rise; but, that its origin is essentially Scandinavian, there can be no question.

It is difficult to believe that the imagination, unaided, can have compassed such a conception as the *πλανῦραι*, or wandering rocks,† mountainous crags which toss about on the waves, and close with such violence as to crush any vessel that comes between them. But, to travellers in the Arctic seas, who have encountered icebergs and witnessed their devasta-

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\* *Odyssey*, x., 110.† *Odyssey*, xii., 71.

tions, the conception becomes an actuality. The chief of these rocks is described as rising high beyond human ken, its summit enveloped in clouds and mist, in the midst a yawning cavern which descends to Hades. In this we have an exact picture of the cavernous icebergs, carrying around their heads an atmosphere of mist, and cleft with vast fissures in which are often seen flocks of seals, the walrus, the sea-lion, and other monsters, whose feet are forefeet, their heads armed with huge tusks and menacing teeth, and whose howl resembles the barking of a dog. These icebergs are also the resort of polar bears who, when impelled by hunger, not unfrequently swim to the decks of the vessels passing, and carry off the sailors for their prey. In the devastations of these bears, and the monstrous appearance of the seals, who, lying closely together, might well produce the effect of a single many-headed, many-footed monster, we have clearly the original of Scylla, with her voice of hound new whelped, her twelve feet all forefeet, her six necks, each supporting a terrific head armed with teeth in triple row with which she snatches the crews from the ships.\*

In the description of Charybdis, we have so complete a reproduction of the Maelstrom that it is difficult to imagine it to have had any other prototype. Few travellers, who have seen the simple rapid which at present bears the name of Charybdis, will be disposed to accept this as the original of that fearful whirlpool which thrice a day absorbs the waves, drawing down ships and men into the gulf, and again disgorges them in a torrent of foam. It is difficult to read

\* *Odyssey*, xii., 101-118. Flaxman and the other artists, who have represented Scylla with *human* heads, have evidently been misled by the description in the *Æneid*, where she is represented with the head and breast of a woman, the body of a dog, and the tail of a fish. But it should be remembered that Virgil's Scylla (who is the personification of a rock in the Strait of Messina) nowhere preys upon the crews of vessels; and that Homer had no such conception, is evident from the fact that any human head of sufficient dimensions to carry off a man in the mouth would inevitably destroy the entire vessel.

Homer's description of the whirlpool\* without feeling convinced that it must have been suggested by one who had either witnessed himself or heard recounted by an eye-witness the terrors of the Maelstrom.

The hardy seamen who had ventured so far into these northern seas would probably re-enter the inland waters by the straits of the Skager Rack and Cattegat, which they would naturally assume to be another of the ocean mouths. It is not impossible that there may have been in that early period a direct water passage hence across the continent of Europe to the Euxine; at all events, the seas and gulfs which lie between Sweden and Russia must have made that impression on these early navigators.

What commerce the Phœnicians established with the denizens of these northern latitudes cannot be ascertained with any degree of certainty; but that they had established intercourse with the British Isles, may be inferred from the mention of tin among the very earliest writers. This metal, found nowhere in the East, is frequently mentioned in the Old Testament as well as in Homer, where it forms the material of the cuirass of Agamemnon, the greaves of Achilles, and the shield of the same warrior.† Ancient tin-mines have been discovered in Cornwall which are commonly supposed to have been worked by the Phœnicians; and, although this is generally assumed to have been subsequent to their discovery by the Carthaginian captain, Hamilcar, in the fifth century

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\* Oft as she vomited the deluge forth,  
 Like water cauldron'd o'er a furious fire,  
 The whirling deep all murmured, and the spray  
 On both those rocky summits fell in showers.  
 But when she sucked the salt wave down again,  
 Then all the pool appeared wheeling about  
 Within, the rock rebellowed, and the sea,  
 Drawn off into the gulf, disclosed to view  
 The oozy bottom.

*Odyssey*, xii., 277-286.—Cowper's Translation.

† *Iliad*, xi., 34; xviii., 612; xx., 271.

B. C., the mention of the metal by these ancient writers would seem to indicate a much earlier period.

To the south the Phœnicians pushed their explorations through the Red Sea into the Indian Ocean, and are supposed to have visited and traded with India. Here it is said that they first learned to venture into the open sea, and trust to the guidance of the winds. Hitherto these journeyings had been strictly along the coasts.\* But, a hardy Sidonian having discovered that a southeast wind brought him directly from India to Arabia, the seamen became gradually accustomed to venture out of sight of land, and to direct their courses by the wind and the stars.

The situation of these two great foreign depots of commerce, Ophir and Tarshish, has been the subject of much discussion. Some writers suppose that the former was on the Indian Ocean, others in Sofala, on the coast of Africa. And they think that the ships which came once in three years from Ophir and Tarshish must have circumnavigated Africa, returning through the Straits of Gibraltar, near which Tarshish is supposed to have been situated. It is not improbable, however, that Tarshish was a name given indiscriminately to more than one Phœnician port. The mention of tin as one of its staples has led some to suppose that there was a settlement of that name somewhere in the British Isles. Others find evidences of one or more colonies, so called, having existed in Mauritania and Numidia. The etymology of the name—signifying a subjugated region—has led some authors to the conclusion that the title was conferred on all such territories as were occupied by the Phœnicians by force of arms, and that Carthage—signifying compact, or treaty—was a name applied to such colonies as had been peaceably established by right of purchase.

\* "Les premières navigations ne se firent qu'entre les isles peu distantes les unes des autres, et lorsque l'on se fut hasardé à de plus longs voyages, on ne fit que suivre les côtes, en évitant soigneusement de s'en trop éloigner, et de perdre la terre de vue."—Mignot, p. 14.

† Davis, p. 31.

The Phœnicians at an early period learned to extend their power by establishing permanent colonies, peaceably if they could, if not, by force of arms. Thus, all the southern coast of the Mediterranean was eventually peopled by Phœnician races, sometimes by colonists sent out for the purpose, at others by whole races expelled from their ancient possessions. It has been asserted that no small portion of the African settlements were peopled by the races expelled by Joshua and the Israelites. Procopius boldly asserts that, at the time when he wrote, there were columns standing in Mauritania Tingitana, bearing the inscription in Phœnician characters: "We are those who fled before the brigand Joshua, the son of Nun." \* The testimony of this author, though not very reliable, is sustained by Jewish traditions, by the evidence of Eusebius † and other ancient writers; and indirectly by the universal tradition that Numidia and Cadiz were colonized by Hercules—a name which, though adopted by the Greeks for their hero, appears to have been known in Tyre about forty-five years, or less, prior to the advent of the Israelites.‡ Sallust speaks of books which belonged to Hiempsal, King of Numidia, in which it was stated that one-half the army of Hercules settled the Mauritanian districts, and the other crossed the Straits of Gibraltar, and founded Cadiz.§

But the greatest of all the Phœnician colonies, though of a later date, was Carthage. This city, popularly supposed to have been built by Dido, about 835 B. C., was in reality but the reproduction of a still more ancient city, built some four hundred years before the advent of that princess. According to Appian, this first Carthage was erected as early as B. C. 1234, or fifty years before the taking of Troy. When Tyre finally fell before the sword of Alexander, this was the refuge open for the expelled Phœnicians, and, though the parent city had been obliterated from the list of nations, her com-

\* Proc., ii., p. 7.

† Euseb., i., p. 11.

‡ Eus., i., p. 261; ii., p. 96.

§ App., Iber., p. 256; Diod., v., p. 208.

merce destroyed, and her very site reduced to a mere hamlet for fishers, her offspring still continued to rule the seas, to open new regions, and to bring to light afresh those formerly discovered by their ancestors. The recent excavations made among the ruins of Carthage have brought to light traces of a civilization, a refinement of art and luxury, which must even have outshone those of ancient Rome; and, when the fiat went forth, "Delenda est Carthago," the mistress of the world well knew that she was about to destroy a greater than herself, for, while one empire swayed the world by force of arms alone, the other was the last and most perfect representative of a race who had, for centuries before Rome was dreamed of, directed the civilization, the learning, and the intelligence of mankind.

ART. IX.—1. *Catalogues of Various Colleges and Universities, Western as well as Eastern.* 1875.

2. *Annual Reports of Heads of Colleges and Universities.*

3. *Appreciative Notices by Newspaper Reporters during the Commencement Season, etc.*

ONE of the aphorisms of Boerhave runs thus: "It is the smallest part of a physician's duty to know that his patient needs particular treatment; it is of much greater importance that he know the appropriate time for physic or lancet." This is as true of social as it is of physical maladies. In one case as well as in the other, the state of the constitution must be taken into account. Nor must the patient's fears, arising from unfavorable symptoms, be overlooked. There are certain premonitions, in a low state of vitality, when the circulating fluids have become vitiated, which it is cruel to ignore.

For these reasons we lay aside our scalpel for the present, except in two or three aggravated cases. Most of our educators are in trouble. Like almost all other

classes they are suffering from what is vulgarly called the "hard times," and we have not the least disposition to embitter their pangs. We have all the less hesitancy in pursuing this course when we bear in mind that they are by no means the best or most faithful teachers who have always the firmest hold on public patronage, but often the worst. It is this class who, in all ages and countries, have lived and died poor. Instance Basedow, Störm, Lavater, Pestalozzi, and Milton, not one of whom realized from his labors, as an educator, while rendering incalculable service to mankind, more than the common necessities of life.

At the same time we would not be understood to deny that success among our educators is often the reward of true merit. Far from perpetrating any such injustice, it has afforded us sincere pleasure, on many an occasion, to bear testimony how eminently well-deserved has been the success of some of our educators—success in producing scholars worthy of the name; success in attaining an honorable fame; and success in securing, if not wealth, at least a sufficient amount of this world's goods.\*

None who have given us their attention in any of our educational discussions need be assured that we are not in the least disposed to undervalue what has been done for the cause of education in this country. Instead of attempting any thing of the kind, we have repeatedly shown that there is no nation in the world which had accomplished so much, at the same age, in the diffusion of knowledge, and the enlightenment of

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\* Thus, for example, we have been informed, since the above remarks were penned, by a correspondent in whom we have implicit faith—one who speaks from experience and personal observation, having a son at the institution to which he refers—that, "notwithstanding the 'hard times,' the extensive school buildings of the Selleck School (Norwalk, Conn.) are crowded; so are the cottages, and there are quite a number of pupils at the Homestead—a building ordinarily used as an infirmary." This, indeed, evinces a just appreciation of an exemplary school opened twenty years ago with only six pupils—a school which, as our correspondent remarks, has, within that period, "sent forth its hundreds of well-trained pupils."

the public mind, as the United States. But should we be satisfied with this? Is it enough for us to know that, when England, or France, or Germany, or Italy, or Spain, had existed as a nation only one century, it had not made one-tenth the progress in civilization that we have? We may, indeed, take credit to ourselves for what we have accomplished in the past, as compared with other nations; but it is much more to the purpose that we compare ourselves with those nations as to the present, and see how we are likely to compare with them in the future.

We are quite aware that most people would prefer to be told that they surpass all others. It is true that there are many good things in which our people may be justly said to excel. But higher education is not one of them; if it were, it is certain that they would excel in things much more important than they do. Our public-school system, as developed in Massachusetts, New York, Connecticut, New Jersey, and some other States, compares favorably with the best European system, not excepting even that of Prussia. But let us pause here for a moment. It may seem paradoxical to say that the general success of our common-school system has retarded the progress of our higher educational institutions. But such is nevertheless the fact. The money which ought to be devoted by the state to the endowment of colleges and universities, and to the encouragement of academies and seminaries which perform their duties faithfully and well, is lavished by politicians under the pretext of introducing "the higher branches" into our common schools. By this fallacious system our higher institutions are forced to compete with the state in the facilities for high culture which they offer the public. Thus, we hear it asked every day, Why should we pay six hundred, or three hundred dollars a year to this or that academy, seminary, or college, when our children can be taught just the same branches at our ward schools, without our having to pay a penny more than we must pay at all events?

This seems quite logical, but it is based on false premises.

To those who have means, it is the penny-wise and pound-foolish policy in one of its worst forms. We once called at the Free Academy in this city, now called the College of New York, and expressed a wish to see what progress the students were making in the higher branches, of which we had heard so much from the politicians and their organs. Dr. Webster, who was then president, frankly and courteously replied in substance as follows: "It will afford me pleasure to show you any of our classes, but, before going, remember, in justice to us, that we do not pretend to teach more than the mere rudiments of Greek, or Latin."

With this honest statement we were entirely satisfied, and, from that day to this, we have never asked to see any class at that institution. We have had recourse to other means, however, in order to test the matter fully. We have, from time to time, visited several of our New York public schools, in which it is claimed that the higher branches, including the languages, are taught. But in none of these instances was the principal so frank or honest as Dr. Webster. Nearly all informed us that nobody need pay any longer for having his son or daughter instructed in Latin, French, German, Italian, etc. We need not say how much of this we believed. We were determined at all events to judge for ourselves, and, as there could be no plausible objection to this, we were afforded opportunities of witnessing the *modus docendi* in the languages and other "higher branches" at several of our schools. It would do no good to mention any of these schools or their principals to our readers; and we therefore forbear to do so. Suffice it to say that in no instance did we find even the rudiments of the classic languages taught in a manner that would enable the brightest boy or girl to learn them in a period of years.

But, unfortunately, there are thousands of our people who, while they have a superfluity of money, have not sufficient intelligence, or common sense, to be convinced of this. The immediate consequences are obvious enough, but few take the trouble to think of the remote consequences, although they

strike at the basis of our civilization. We can only remark here, in passing, that there are many excellent academies, seminaries, and institutes, as well as colleges, whose benches or desks are not half filled, and whose principals and instructors are consequently not only discouraged, but painfully disheartened, chiefly, if not exclusively, on account of this thoughtless, absurd, and often fraudulent lavishing of the public money.

But, to resume our remarks on the status of our colleges and universities as compared with the European institutions bearing the same names. It is acknowledged that we have been successful in our common-school system, so far as its legitimate object extends. But we should take warning by the case of the honest and thrifty, but rather thoughtless husbandman, who, having built himself a handsome cottage, which was amply large, comfortable, and respectable, but which he began to regard as mean in proportion as he became richer. In order to remedy this defect, he spent a large amount in overloading his cottage with architectural decorations. In one corner he introduces Corinthian columns, in another Ionic pilasters, in front he adopts the Gothic style, in the rear the Renaissance, etc., until, in time, his house becomes neither cottage, nor court, nor castle, but a ludicrous mixture of the grotesque and *bizarre*; and, as if tired of being a laughing-stock to the passers-by, it fell asunder, and remained a heap of ruins.

However, since we have confessedly accomplished excellent results in our common-school system, is there any reason why we should not accomplish corresponding results in higher education if we earnestly resolved to do so? But we must first disabuse our minds as to what ninety-nine out of every hundred of our colleges and universities are at present; we must realize the fact that this proportion are really of no higher grade than the second-class grammar schools of England. They are very much inferior, in general, to the Prussian *Vorschulen* (preparatory schools), not to mention the Prussian *Gymnasien*, the *Höhere Bürgerschulen*, the *Progymnasien*, etc.

It is far from being a pleasure to us to make these unfavorable comparisons; we do so with sincere reluctance—because it is necessary that the truth should be known. We shall not, however, ask the reader to be satisfied with our opinion on the subject, although it is one we have studied pretty carefully, and we can hardly be supposed to have any interest in misrepresenting the facts. Any educated, unbiased person, who has devoted sufficient attention to the subject, will fully corroborate our views. Several essays on higher education in Europe, especially in Germany, have been written by graduates of our leading American colleges, who have travelled and examined the facts for themselves. There is not one of these that we have seen which does not assign our colleges a very low grade. Nearly a year ago\* we quoted, for a particular purpose, a book which had been published only a few months previously. We allude to that of Mr. James Morgan Hart.† For the same purpose we quoted Matthew Arnold's book, with two or three others. What our present object is in quoting other parts of the same works will be seen in due time. Instituting a comparison between American and German students, Mr. Hart proceeds: "The American collegian is *simply a school-boy of larger growth*. He may be old enough to luxuriate in a mustache, muscular enough to row in the Saratoga regatta, eloquent enough to carry off some gold medal, studious enough to be regarded by his associates as a prodigy of learning. But with all that he is *none the less a school-boy*."‡ In another chapter, Mr. Hart remarks: "The only just way of comparing two systems is to take them at points widely apart. The idler of Germany, I am confident, has forgotten twice as much as the idler of America; the industrious student knows twice as much as the industrious undergraduate; and the future scholar of Germany is a man of whom *we in America have no conception*."§

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\* N. Q. R. for last March, No. LX.

† *German Universities*. ‡ *Ibid.*, p. 287. § *Ibid.*, p. 303.

When Mr. Hart comes to describe the German student, by himself, without making any formal comparison, he presents the difference between the two systems in a forcible light. "When," he says, "the young *Primaner* receives from the gymnasien his certificate of 'ripeness' for the university, he knows that his school-boy days are over, that he has done forever with lessons, ranks, grades, surveillance, courses of instruction. He is a young man free to select his studies, his professors, his rooms, his hours of work, to regulate the entire course of his life, to be what his own energy and talents may make him." \* Describing the attainments of the average German student, Mr. Hart proceeds: "I was particularly struck with his proficiency in writing Greek. He wrote it very rapidly, in an easy current hand, using abbreviations not unlike the ligatures in the editions of the sixteenth century. In short, he had a Greek *hand*, and did not print each letter separately as an American does. He filled in the accents after writing, as an American or Englishman crosses his *t's* and dots his *i's*. \* \* He had studied Hebrew enough at the gymnasien to be able to read the Old Testament with the vowel points. He had also studied Sanscrit under Benfry at the university, and could read the epic poetry with fluency." †

The professor in a German university has very different duties to perform from those of a professor in an American college or university. The difference arises from two circumstances. The German professor receives the students into his class, or rather into his lecture-room, in a very different condition from that in which the American professor receives his; and, what is perhaps still more important, the former is much better prepared for the reception than the latter. "No man can become a professor in a German university," says Mr. Hart, "without having given evidence, in one way or another, that he has pursued a certain line of study, and produced results worthy to be called novel and important. Professional chairs are not conferred 'on general principles,'"

\* *German Universities*, p. 288.

† *Ibid.*, p. 305.

etc. When the position is finally attained, however, no position is more exacting. "It means severe intellectual toil from morning till evening, from manhood to declining years. But there is a freedom about it that is inexpressively fascinating. The professor is his own master. His time is not wasted in cudgelling the arts of refractory or listless reciters. His temper is not ruffled by the freaks or the downright insults of mutinous youths. He lectures upon his chosen subject, comments on his favorite Greek or Roman, or early German or Sanscrit author, expounds some recently discovered mathematical theorem, discusses one or another of the grave problems of history or morals, and is accountable only to his own conscience of what is true and what is false. He lectures only to those who are willing and *able* to hear." \*

Without entering into particulars we may remark, briefly, that Matthew Arnold—a more reliable authority than Mr. Hart—bears similar testimony in comparing the educational institutions of Germany with those of England. Most of our readers will remember that Professor Arnold was sent to the Continent in 1865, by the Schools Enquiry Commissioners of England, charged, as he says himself, "with the task of investigating the system of education for the middle and upper classes which prevails in France, Italy, Germany, and Switzerland." A better qualified man could hardly have been chosen. He occupied seven months in visiting the higher institutions of the different countries mentioned. Having been educated at the great schools of Winchester and Rugby, and occupied a professor's chair at Oxford, it might be supposed that he would be strongly biased in favor of the English institutions. But there is evidence everywhere in his book † that he was far above any such narrow-minded feeling. Nor has he changed his mind as to the relative merits of the English and Prussian systems since 1865. On the contrary, in issuing a new edition, published last year, he reinforces

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\* *German Universities*, p. 268.

† *Higher Schools and Universities of Germany*.

his former views by pointing out various reasons for the unquestionable superiority of the German system. "The practice of Germany," says Prof. Arnold, "supplies a searching criticism of this kind, for we know how German practice is governed by the notion, that what is to be done should be done *scientifically*, as they say; that is, according to the reason of the thing, under the direction of experts, and *without suffering ignorance and prejudice to intrude.*"\* Further on, the Professor adds: "Prince Bismarck's principle is, that a man who exercises an important public function in *dealing with men's minds*, should exercise it with the light, help, and discipline of *the best culture which the nation has to give.*"† This culture is given by the national universities."

This, be it remembered, is a criticism by contrast, on the course pursued in England, but pursued in this country to a ten fold greater extent. Every intelligent person is aware that not only are "ignorance and prejudice" suffered to "intrude" in this country, but that in many cases, if not in the majority, it is ignorance and prejudice that are allowed to have most to say even in the appointment of heads of colleges and universities, for the simple reason that the ignorant and prejudiced have generally more money than those who are enlightened and liberal-minded.

It is well known to all who take any interest in the subject that the doctrine of "availability" is not confined to those of our enterprising and patriotic people who are ambitious to serve their country in the most important political offices; those who aspire to be presidents, chancellors, or provosts of our colleges or universities, frequently attain their object by means of the same doctrine. Thus it is that some of our oldest and most respectable colleges sometimes fall under the control of men who do not possess one of the essential qualifications for the important duties they assume, while those who confessedly possess all the necessary qualifications are passed over, or set aside.

Is it any wonder that heads of colleges who owe their

\* *Preface* to Second Edition, p. 8.

† *Ibid.*, p. 15.

positions to a doctrine of this kind should, occasionally, render themselves ridiculous both at home and abroad? What could be expected from men who are "available," not because they are scholars, not because they have any knowledge of the management of a college, or of any other institution the management of which requires judgment, forethought, or even common sense, but because, being commonplace people, having no ideas of their own, and devoid alike of energy and courage, they had never created any enemies who might embarrass them in their new position, by proving their utter unfitness. Is it strange, we ask, earnestly, that the academic honors conferred by such heads are sometimes of a character to make the Faculty, over which they happen to preside, blush? \*

We have always made a broad distinction between our higher female education, and our higher male education, as compared to the corresponding grades in the principal countries of Europe. It has afforded us pleasure to bear testimony, again and again, to the fact that as high culture is afforded in the better class of our female institutions as in those of any country whatever. It seems almost self-contradictory to say that, while our male institutions are notoriously so much inferior to the male institutions of Europe, our female institutions are quite equal to those of England, France, or Germany. But a little reflection will explain the apparent anomaly. Female education has not made the same progress in the principal countries of Europe that male education has. To those unacquainted with the subject, it will doubtless seem incredible that, in some essential respects the former has retrograded while the latter has advanced. Such, however, has really been the case.

Among the highest class of European ladies of the pres-

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\* Of course, we do not allude to such honors as the LL.D. conferred on General Grant, or the Ph.D. conferred on Thomas Carlyle. These were but slightly inappropriate, and savored rather much, perhaps, of toadyism. But, had it been otherwise, it would have been cruel to add either censure or ridicule to the very unkind, contemptuous sneers of one of the parties supposed to be honored by the degree.

ent day, no such high culture is to be found as that which characterized the ladies of the times of Louis XIV. and Elizabeth. Elizabeth herself, Lady Jane Grey, and Mary Queen of Scots, are but representatives of the female scholars of those times. Lord Bacon owed more to the instructions of his mother than to those of any of his male teachers. In short, we might mention scores of ladies of that age who conversed fluently in Latin, and who were so familiar with the tragedies of Sophocles and Euripides in the original, that they took part in representing those dramas in their parlors, as our ladies of the present day take part in representing English and French dramas.

But a strong reaction sprung up throughout Europe against this high grade of female scholarship. Paris was the recognized intellectual capital of Europe. As such, it gave the *ton* in regard to female culture and accomplishments, just as much as it does at the present day in regard to fashions in female dress. Accordingly, Molière wrote his famous *Les Femmes Savantes*, and its effect was soon felt throughout Europe. Cervantes was scarcely more successful in his attack on degenerate Spanish chivalry than Molière was in his equally irresistible onslaught on female scholarship. The whim of the day in regard to higher female education is evinced, not only in his *Femmes Savantes*, but, in fact, forms the under current in several of his comedies, especially in *L'École des Femmes* and *Les Précieuses Ridicules*. It is certain that never since has there been the same profound thoroughness in female education in France or England. The term *bas bleu* became a reproach. Everybody that looked to the acknowledged fountain-head for what was considered right and proper, in the adornment of the mind as well as the body, seemed to remember the precept of Clitandre :

" Je vous suis garant  
Qu'un sot savant est sot plus qu'un sot ignorant." \*

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\* *Femmes Savantes*, iii., 3.

And, be it remembered that it was not alone the comic writers who thus discouraged female learning; the moralists and philosophers evinced the same spirit to a great extent. Instance, La Bruyère\* and Rousseau. The latter, who wrote a century later than Molière, denounces a "blue-stocking" in the following language: "Une femme bel-esprit est le *fléau* de son mari, de ses enfans, de ses amis, de ses valets, de tout le monde."† Not content with this, the philosopher utters a double warning against female learning; the studious young lady is warned of the fate that awaits her; the young man is warned against her on pain of being regarded by the world as devoid of sense, and suffering the consequences forever after.‡

Now, if it be borne in mind that Addison, Steele, Chesterfield, Johnson, Pope, and Goldsmith, have each inculcated a similar doctrine in regard to the higher education of women, it will be admitted that it is not without good reason we have always maintained in these pages that, notwithstanding the lamentably low standard of classical education in most of our colleges and universities, as compared to those of Europe, our female education, as developed in our first-class female institutions, is such as we may well be proud of.§ Nor is the fact denied at London, Paris, or Berlin, by enlightened, unprejudiced men or women who have given sufficient attention to the subject. But we are glad to add to this that the French and English have very much changed their minds on this subject within

\* *Les Caractères*; ch. iii., *Les Femmes*.

† *Émile*, vol. i., p. 5.

‡ "Toute fille lettrée restera fille toute sa vie, quand il n'y aura que des hommes sensés sur la terre: 'Quæris cur nolim te ducere, Galla; diserta es.'"—*Émile*, vol. i., p. 5.

§ It is no mere compliment to either educators or students to say that no schools in England, France, or Germany, send forth more highly cultivated young ladies—young ladies whose minds are better stored with knowledge, both useful and ornamental—than the Gannett Institute, Poughkeepsie Female Academy, Mlle. Rostan's School, and several other of our female institutions, whose characteristic merits are sufficiently familiar to our readers.

the present age. Nearly half a century ago M. Guizot began to create a reaction in favor of thoroughness in female education; in England his views on the subject were warmly accepted and strongly commended by men like Lord Brougham, Lord Macauley, and Bishop Whately. Considerable progress has, accordingly, been made within the last quarter of a century. But there is still ample room for improvement, so that we can repeat without any fear of well-founded contradiction that, if higher female education in America is not superior to higher female education in Europe, the former is certainly not inferior to the latter.

But, in commencing this article, we did not intend occupying the reader's attention more than a few minutes before proceeding with what was our chief object, namely, to offer some views on the present mode of teaching the classic languages in our colleges. As it is, the limited space we have now left renders it necessary that we discuss the subject merely in outline. Of all the causes to which the backward state of scholarship in this country may be attributed in various degrees, the undue amount of time devoted to mere rules is that which requires the most serious attention. The other obstacles to which we have alluded become so obvious, on reflection, that it requires no argument to show that they should be set aside as soon as possible. But it is a very different thing to convince professors that the system they have practised, both as pupils and instructors—the system their fathers had practised before them for generations—is radically defective. Had the grammatical rules of the Greek and Latin languages existed before those languages themselves, then there might have been some reason in attempting to master the latter by means of our present system. It is necessary to bear in mind, that not one of the treatises on grammar used by either the ancient Greeks or the ancient Romans, to perfect themselves in their own language, can be shown to have survived the fall of the Roman empire. The best grammars of those languages have been written by persons who had learned them without any grammar. Had these men

adopted any such course as that pursued at our colleges, they never could have written any grammar worth studying.

It would be a great mistake to infer from this that we undervalue the use of the grammar. Most cheerfully do we bear testimony that nothing facilitates the study of a language, especially the Latin or the Greek, more than the knowledge of its principles. But, by this, we do not mean that any student should be required to commit to memory all the rules, exceptions, remarks, notes, etc., etc., in any of our larger grammars—in Andrew's and Stoddard's, for instance. We hold that not one-tenth of them should be so committed. Every intelligent student will bear us testimony that to commit to memory all that is required in this way, by most of our professors, would occupy all the time that can be devoted to Latin and Greek during the ordinary term, without translating a page of either language into English, or *vice versa*. Let us suppose, however, that the thing is done—that the student can repeat every rule, exception, remark, note, etc. What then? Does he know Latin or Greek on this account? Our reply is, that could he have committed to memory, in a similar manner, all the grammars ever written or compiled, he could not, by that means, translate one ode in Horace, or one scene in Euripides. Upon the other hand, there is not one rule or exception which it is essential to know that is not developed, and impressed on the memory, in reading either language by means of a dictionary.

We are quite aware that many will shake their heads at this; but it is not the less true. If it be inquired who were the best Latinists in modern times, it will be found that Erasmus and the elder Scaliger were, at least, among the best. Their Latin works is a sufficient proof of this; but each mastered the language without burdening his memory with either rules or exceptions. Moreover, each wrote an excellent grammar, but one that he could carry in his vest pocket, yet one that contained all necessary rules and exceptions. The truth is, that a grammar could be constructed at this day from the *Colloquia Familiaria* of Erasmus, by one

who had never burdened his memory with any grammar—never had any other aid than a good teacher and a good dictionary. It may be urged that Scaliger and Erasmus are exceptional instances, but we might add a score of similar names in illustration of the same principle, including Cardinal Bembo, Latin secretary to Leo X., the learned Quellet, who wrote the famous Latin lampoon on Cardinal Mazarin, George Buchanan, author of *De Jure Regni apud Scotos*, etc.

As already intimated, there may be some excuse for making the grammar the chief text-book at our preparatory schools. The grammar work, as such, is supposed to be completed there. Hence it is that in England the best of them are called grammar-schools. But how is it with us? Our colleges and universities are the grammar-schools, and nine out of every ten of them are sadly inferior at that.

We have said, more than once, in these pages, that we have met several American preparatory schools, in our peregrinations, which give much more thorough instruction than several American colleges and universities. Many thought this very absurd. And why should they think otherwise, always hearing, as they are, about the great work of "preparing students for college." The work is great, undoubtedly, and good, when properly done, or when the college for which the preparation is made is worthy of the name. But, when the student leaves a preparatory school, and goes to a college which is merely preparatory, and whose preparation is wretchedly imperfect, what then?

We regret to say, that three-fourths of those we have seen are of this character. Let those who doubt the fact examine for themselves. Having done so, if competent to judge, and unbiased in their opinion, they will bear emphatic testimony to the following facts: The translating at most of our colleges is miserable. In nine cases out of ten, if the student were made to turn over one page, or even one paragraph, beyond his lesson, not a sentence could he translate; and, what is still more lamentable, his professor would be very nearly, if not quite, as helpless as he. But, even in the lesson

prepared for the occasion, some of the translating scenes witnessed at certain very pretentious colleges seem painful, or laughable, according as the looker-on is predisposed to one feeling or the other. In some instances, however, the work seems to proceed quite smoothly. The student is very glib with his rules, the professor equally glib in giving a hand.

Most people are deceived by this; they overlook the fact that, if either student or professor were half as familiar with the stems, roots, moods, tenses, etymologies, etc., of words in general, as they are with those of the half-dozen they exhibit their cleverness in, not only would there be no hobbling, no hemming or hawing, etc., in their translating any passage presented to them, but they could express their ideas orally in the language, almost, if not quite, as fluently as they can in their own dialect. The student readily admits that he cannot translate beyond his lesson. Of course, the professor is not asked the question; but, if the speaking of the language is hinted at, even for the expression of the most ordinary ideas, he looks as if he thought one must be crazy to think such a thing possible!

Another matter of endless rules, the importance of which is enormously exaggerated, is scanning. There are generally two or three students in a large class who are regarded as experts in scanning. These young gentlemen are brought forward to show by their wonderful performances in that line how thoroughly the language is studied, and how perfectly understood. Yet one may scan a hundred lines in any Latin author, without understanding what as much as one line means; and the same remark applies with still more force to Greek authors. In other words, the fact that one can scan as correctly as possible—that he can tell the quantity of every vowel and diphthong, also the number of feet, and the kind or kinds of feet, in each line of any given passage—is no evidence that he understands the meaning of the passage, or that he could give a faithful or intelligent rendering of a single line of it.

Of course, many will dispute this, but let us see whether we

have any sufficient reason to base our assertion upon. First, be it remembered that the rules of prosody in the classic languages, especially in the Latin, are, for the most part, purely arbitrary. We have really no other reason, in general, for making the syllables long or short, than the *supposition* that the ancients pronounced them so. From these two quantities—long and short—all the varieties of poetic feet are derived. Now, when it is borne in mind that Horace alone uses no fewer than twenty-eight different kinds of feet, some idea may be formed of the amount of time and study it requires to scan Horace, not to mention any other Latin poet. Be it remembered, also, that, on account of the large numbers of words borrowed by the Roman poets from the poetry and mythology of the Greeks, it is not sufficient for the student of Latin to be acquainted with the rules of Latin quantity in order to scan *ex regulâ*, since most of the numerous words thus borrowed are used in accordance with the laws of Greek quantity. Add to this the fact that in Greek poetry there are as many as one hundred and twenty-four (124) different kinds of feet, and then form an opinion of the amount of rules and exceptions which it is necessary to learn in order to scan; yet those who could not for the life of them translate the briefest passage in Greek or Latin, not to mention making the slightest use of either language colloquially, claim to be almost infallible in scanning!

A great fuss is also made in our colleges about the Greek accent. We suppose we need hardly say that we do not mean by this that the use of the accent should be overlooked or neglected. But most of our Greek professors impose as much labor on their students in regard to the accent, as if it were an essential part of the language, whereas, the truth is, that the ancient Greeks used no such signs at all. Nothing of the kind had been attempted until long after the glory of Athens had passed away, until Greece had become a Roman province, and the language of Demosthenes, Sophocles, and Plato was no longer spoken, except in a corrupt, degenerate form. According to the most reliable authorities extant on the sub-

ject, the first who attempted the system of accentuation, now practised, was Aristophanes of Byzantium, who flourished about two centuries before our era.\*

Now, if the intelligent reader will only revolve in his mind the herculean task which, as we have shown in this hurried glance, the American student is supposed to perform, altogether independently of translating or reading Greek or Latin, he will not think it strange how little is known, in general, about either of those languages, even by those who study them longest at our colleges or universities. Would it not be a sufficient explanation, by itself, of the humiliating fact that, of the large number of our Greek and Latin professors who undertake to edit Greek and Latin text-books, or to become the authors of grammars of those languages, not one out of a hundred dares to write the briefest preface in either, for fear of exposing his ignorance? As for attempting to use either orally, that, as we have already remarked, is out of the question.

At no time, for centuries, has this been true of the professors in the colleges of the principal nations of Europe. It is not alone in Prussia that professors of Latin are expected, not only to write Latin prefaces and Latin introductions to their classical text-books, but also to converse in that language with more or less facility. It is so in France, in Italy, in England, in Scotland, in Ireland. In each of those countries it is held among all engaged in higher education, nay, among all scholars worthy of the name, that it is absurd for any one to claim to understand a language which he can neither write nor speak. Then, can one teach others what he does not know himself? By no means. It is the old story of the blind leading the blind.

Hundreds will tell us, we know, that it is impossible to learn a dead language, like the Greek, or the Latin, to the degree of thoroughness we suggest, without neglecting all

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\* See C. O. Müller *Geschichten Hellenischer Staats und Stadt*, 2d ed.; also Butmann's *Lexilogus*, p. 295, 73.

other studies. But nothing is more erroneous. Those who have accomplished most in other studies are those who have best mastered the classic languages. Instance Copernicus, Kepler, Newton, not to mention Bacon, Milton, etc. The three great astronomers alone, each of whom has written his *magnum opus* in Latin, would amply refute the allegation that the thorough study of the classic languages—the study necessary to be able to use them as languages—precludes the student from making that progress in other departments of knowledge which the general development of his faculties would require. The fact, established by experience in all countries, is, that not only is the student not retarded in the acquisition of general knowledge, or in learning any science, by the time he occupies in studying the classic languages thoroughly, but the time so occupied is found, in the long-run, in nine cases out of ten, to have greatly accelerated his progress.

Nor is this in the least paradoxical. Studies which confessedly invigorate the mind, and develop and train its various faculties, cannot fail, in general, to enable those who have intelligently and earnestly pursued them, to perform a much larger amount of intellectual labor in a given time than those can who have neglected such studies. In short, Kepler did not at all exaggerate when he maintained, in a Latin thesis, that the student thus prepared can accomplish more in one year, in any field of research for which he has a taste, than he could have accomplished in three, or even four, years without that preparation.\*

In accordance with these facts, we have urged upon our educators, again and again, that there can be no just pretension to thoroughness in teaching the classics until the fact is generally recognized in our colleges and universities that, at least, the Latin should be so mastered as to enable its students to express their ideas in it orally, as well as in writing, with tolerable fluency. That there is nothing in our American atmosphere that militates against such a consummation we

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\* *Vide Littere Kepleri de Rebus Astrologicis*, Erlangen edition, p. 27.

have seen ample evidence. At three colleges of the Christian Brothers—those of Manhattan, Rock Hill, and St. Louis—the Latin is spoken with considerable fluency by the undergraduates. It is also written and spoken at the well and favorably known Catholic Seminary near Niagara Falls. As for the students of Manhattan, we have heard them carry on spirited debates in Latin for more than an hour at a time.

But let none think that these institutions are thus thorough in teaching Latin merely because they are Catholic. There are scores of Catholic colleges, so called, at which the Latin is as imperfectly taught as at any of our Protestant colleges. There is not one of the Jesuit colleges in Europe at which the Latin is not spoken; but, if there is one of the colleges of the same fraternity in America at which it is spoken otherwise than wretchedly, if spoken at all, we have never seen it, or heard of it.

That Protestant or Catholic has nothing to do with it\* is

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\* We are, indeed, glad to bear testimony to the fact that each denomination has some excellent institutions. In times past, the Methodists had not an enviable name in this respect; but such is no longer the case. No denomination has better colleges or universities, at the present day, in the United States. Instance Syracuse University and the Wesleyan University (at Middletown, Conn.)

But we cannot even allude to the latter without expressing our regret that the Rev. Dr. Cummings should have retired from its presidency. True, he is still a member of its Faculty, and occupies an important chair; but it seemed to us that it was not wise on the part of the trustees to accept the resignation of one who had done so much for the institution, and whose qualifications, abilities, and success, as an educator, are acknowledged to be unquestionable wherever he is known. The Rev. Dr. Foss, his successor, may prove himself worthy of occupying the responsible position which has been so efficiently and honorably filled for nearly twenty years. We heartily wish he may, although we have no knowledge of his qualifications or fitness, and do not claim to possess the gift of prophecy.

Our readers know how well the Presbyterians are represented by Lafayette College (Easton, Pa.) The Lutherans may justly claim that they have ample means of culture at Muhlenberg College (Allentown, Pa.), so far as those means consist in a learned Faculty, whose energies and zeal are judiciously and faithfully directed by its president.

The Unitarians have established one of the best institutions in

sufficiently proved by the relative standards of the great European colleges. Compare, for instance, the colleges of Prussia with those of Italy or Spain: is it necessary to ask at which is the Latin most thoroughly taught, and best mastered? Without mentioning Oxford, Cambridge, or Dublin, each of which has produced Latinists imbued with the true classic spirit, it could be easily proved that the standard of classical education is much higher, at the present day, in the Protestant colleges of Europe than in the Catholic colleges, and that it has been so from the time of Luther and Erasmus.

It is not our habit, however, to ask our readers to accept our views if we cannot show that they are well founded. Nor shall we in the present instance. Be it remembered, that the method of teaching the classics in our American colleges is the synthetic in its most exaggerated form. Now, if we interrogate the great educators to whom Prussia is

America; but it is now, we regret to say, like a ship which, though still as strong and gallant as ever, has become devious in its course from having a shaky hand at its helm. The Episcopalians had long good reason to be proud of old Columbia, but, alas! its immense wealth has so demoralised it, that, at the present day, it derives its chief fame from the materialistic tendencies of its scientists, especially in matters gastronomical, requiring analysis. Undoubtedly, the Baptists have made great progress since they were described so uncharitably by Butler, in his "Hudibras." They had no universities then, or colleges; nor did they wish to have any such sinful, dangerous things. Now they have universities which are quite equal to the average, although it may honestly be said of each:

"Adhuc remanent vestigia raris."

No American institution has enjoyed a more honorable fame than Georgetown College. It had long the good fortune to have men at its head who knew how to direct its destinies—men capable of comprehending that they could be good Catholics without being bigoted or intolerant. We are assured that it will be so again before long; but in the mean time it labors under a dense cloud, reminding the classical student who saw it in better days, under different auspices, of the lines:

*"O rebus meis*

Non infideles arbitrac,  
Nor, et Diana quæ silentium regis,  
Arcana cum fiunt sacra,  
Nunc, nunc adeste."

indebted at the present day for her high standard of scholarship, we shall find that one and all reject that method. Thus, for example, one of the biographers of Johann Bernhard Basedow presents us, not merely what that great educator claimed, but what he is well known to have accomplished. We can only make room for a brief passage: "One language," says Basedow, "requires, with us, unless it be brought by grammatical *exercises* to the natural degree of accuracy, *six months*, in order to enable the student *to understand whatever he hears or reads in it*, as if it were his mother tongue, and to *speak* and write it, little by little, *after rules by himself*. After this we require six months more of *grammatical exercises* to make a Latin or French scholar so complete, or so little lacking of it, as it is *not possible for him to be from the ordinary school without uncommon good fortune, genius, and application*." But Basedow proceeds to illustrate and explain: "In May, 1775," he says, "two boys, of thirteen and seventeen years, were sent to the Philanthropinum. They had minds of ordinary capacity. Neither of them had the least attainments in study or the least rudiments of Latin. They can now (Feb. 1, 1776, nine months afterward) *understand a Latin address* on any art which may be selected, if only the *technical terms* be explained to them, and the unusual words made clear *by Latin synonyms*, or by the connection. They read a classical author understandingly, if he is easy; that is, if he is good. They can express themselves, *either orally or in writing*, upon any subject, so well that they would get on much better in ancient Rome than one could do in Leipzig now who could write and speak only low Dutch."\*

The labors of Basedow were appreciated by every intelligent, thinking man among his contemporaries, although his reward from those of another class was abuse, simply because he could not live and work without food and raiment. He

\* *Contributions to the History of the Life of Johannus Bernard Basedow*, Magdeburg, 1791.

once met Goethe in his peregrinations among the rich. The poet devotes several pages to a description of the educator. We can only find room for a small fragment. "Basedow was pursuing," says Goethe, "an object of *primary importance, the better education of youth*; and for this purpose he was seeking *large contributions from the noble and the rich*. But, scarcely had he by his reasoning, or the force of his powerful eloquence, brought them, if not to the point he wished, at least into the state of mind *favorable to himself*, when his vile anti-trinitarian notions would catch hold of him, and, without the least regard for the place where he might be, he would break out into the strangest speeches, exceeding religious in their intention, but, according to the beliefs of society, exceedingly abominable."\*

Sturm was still more successful, if possible, in teaching the classic languages. "In fact," says one of his biographers, "the scholars of the *lower classes* acquired Latin words for every possible object that was about them in life, whether in the kitchen or cellar, the garden or stable, the school-room or church. And they were thus taught almost according to the manner of Comenius in the *Orbis pictus*, only that they learned the world in the original instead of in pictures."†

Every student of French literature is familiar with the facility with which Montaigne acquired the Latin language while a mere child. "As for myself," he says, "I was about seven years of age before I understood either French or Perigordin any more than Arabic, and, without art, book, grammar, or precept, whipping, or the expense of a tear, had by that time learned to speak as pure Latin as my master himself." Referring to the pains which his father had taken to have him thoroughly educated, he proceeds: "Like those who, impatient of a long and steady cure, submit to all sorts of prescriptions and receipts, the good man being extremely timorous of any way failing in a thing he had so wholly set his heart upon, suffered himself, at last, to be overruled by

\* Goethe's Works, vol. xxii., p. 279, *et seq.* Edition of 1840.

† *Life and Educational Labors of John Sturm*, by Karl von Raumer.

*the common opinion which always follows the lead* of what has gone before, like cranes, and, falling in with the method of the time, having no longer about him those persons he brought from Italy, and who had given him his first models of education, he sent me at six years of age to the College of Guienne, at that time the best and most flourishing in France. And there it was not possible to add any thing to the care he had to provide me the most able tutors with all other circumstances of education, reserving also several particular rules contrary to a college practice, but so it was that with all these precautions it was a college still. My Latin immediately grew corrupt, and by discontinuance I have since lost all manner of use of it."\*

Montaigne does not mean to undervalue college training; but he tells us elsewhere that the classical training at the colleges of France in his time was little more than nominal. And the mode of teaching the classics was almost identical with the present system in our colleges. This will explain how it was that, instead of improving at the College of Guienne, he lost there all the Latin he had previously learned, not because he did not receive lessons in it from several professors, not because he was not required to commit to memory numerous rules and exceptions from the grammar, but because he had no longer any practice in speaking the language. Very justly, therefore, Montaigne remarks, in another of his essays, that the system then practised in the colleges of France did not teach the students prudence or virtue, only the etymology and derivation of those words:†

The same ideas are expressed by Rousseau, with equal

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\* *Essays*, vol. i., ch. xxv.

† "Je retombe volontiers sur ce discours de l'ineptie de nostre institution; elle a eu pour sa fin, de nous faire, *non bons et sages*, mais sçavants; elle y est arrivée; elle ne nous a pas appris de *suyver et embrasser* la vertu et la prudence, mais elle nous en a imprimé la *dérivation et l'étymologie*; nous sçavons décliner vertu, si nous ne sçavons l'aimer; si nous ne sçavons que c'est que prudence par effect et par expérience, nous le sçavons par *l'argon et par cœur*."—*Essais*, ii., ch. 17.

force, in another form. He says that students depend too much on rules, and too little on their own reason: "*La grande erreur de ceux qui étudient est, de se fier trop à leurs livres, et de ne pas tirer assez de leur fonds, sans songer que de tous les sophistes, notre propre raison est presque toujours celui qui nous abuse le moins.*"\*

It is exactly the same in our day and country. Our college professors teach their students to decline and conjugate words, but not to become imbued with the spirit of the language, or its literature. Since Matthew Arnold admits that there is a great deal too much of this sort of teaching in the great universities of England as compared with the German universities, what may not our professors admit? "A Latin grammar of thirty pages," says Professor Arnold, "and the most elementary treatise of arithmetic and of geometry, would amply suffice for the uses of philology and mathematics as a universally imposed preparatory discipline. By keeping within these strict limits, *absolute exactness* of knowledge—the habit which is here our professed aim—might be *far better attained* than it is at present."†

Again, a little further on, he says: "But an immense development of grammatical studies, and an immense use of Latin and Greek composition, take so much of the pupil's time, that, in nine cases out of ten, he has *not any sense at all* of Greek and Latin literature as *literature*, and ends his studies without getting any. His *verbal scholarship*, and his composition he is pretty sure, in after life, to drop, and then all his Greek and Latin are lost. Greek and Latin *literature*, if he had ever caught the notion of them, would have been far more likely to stick by him."‡

There was a time when the grade of classical scholarship was higher in England than in any other country in Europe, and this was the period when it produced its most illustrious

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\* *Nouvelle Héloïse*, Prem. Part., Lettre xii.

† *Higher Schools and Universities of Germany*. Ed. 1874, p. 178.

‡ *Ibid.*

men. That of Oxford and Cambridge was then no "verbal scholarship," but the highest order of comprehensive knowledge, and its superiority was universally acknowledged. Thus it is that a finer tribute was never paid to England than that of Rousseau, based on this fact; and it may be added that the value of such scholarship, arising from the noble results it produced, was never more forcibly expressed: "Si vous connaissez la noblesse d'Angleterre," says Rousseau, "vous savez qu'elle est *la plus éclairée, la mieux instruite, la plus sage, et la plus brave de l'Europe.*"\*

In urging that the Latin should be used orally as well as in writing, we are not influenced by the utility of expressing one's thoughts in it in one way or the other; although no one competent to judge will deny, on reflection, that there is utility in it of no slight degree. One capable of speaking Latin may travel in any part of Europe, not excepting Russia or Turkey, feeling sure that he will be readily understood by scholarly men. It is but rarely he will meet a member of any of the learned professions who cannot converse with him in the language of Cicero. This he would find to be the case whether his pronunciation were in accordance with the Continental or the English method, the difference between the two consisting in little more than the different sounds of two or three of the vowels—a difference easily recognised on both sides.

This, however, is by no means the chief purpose for which the colloquial use of the language has been so earnestly recommended by the best classical educators of all nations. That purpose is its effect in strengthening the memory. Instead of retarding the progress of the student, it produces, to an incredible extent, the opposite result. In order to understand this, it is only necessary to bear in mind that the most formidable stumbling-blocks to the student in learning Latin are the smaller words, chiefly the particles — i. e., adverbs, conjunctions, prepositions, etc. In learning to speak, one would impress more of these on his

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\* *Nouvelle Héloïse*, Prem. Part., Lettre lxii.

memory in one week, and become more familiar with their proper use, than he could in a year, by committing them to memory from the grammar, or even by translating from Latin into English. The acquisition of the language is thus greatly facilitated, and one is enabled in a comparatively short time to read a Latin author as he would a French or English author—to read the ancient language as he does the modern, not for its grammatical rules, its etymology, or its syntax, or its prosody, but for its *literature*.

But, however inferior the system of teaching in our literary institutions is, that in our scientific institutions is, in general, infinitely worse. If the real facts in regard to the latter were mentioned without the least coloring, they would seem gross misrepresentations. Thus, for example, who that has given any particular attention to the subject would believe that there are some of our polytechnic institutes, and of the scientific departments in our colleges and universities, whose professors have instruments and apparatus of which they do not know the use?

There was a time when we did not believe any thing of the kind ourselves. We were thus innocent so recently as three years ago. But we had not to go far to be convinced; only across the North River to a place not far from Hoboken. There our eyes were opened for the first time, although, while learning the facts—which took two mortal hours—we found it no easy matter to keep our eyes open. There was one ordeal, to which we were subjected, that really proved too much for us in this respect. We ought, perhaps, to be ashamed to own that we could not hear a lecture on *light* without feeling as if we had taken a dose of laudanum. We must, however, plead guilty.

But there were extenuating circumstances in our case: First, we had to view all the instruments in turn, as if they had been placed there for show, and for no other purpose. We were informed, at least twenty times, that there is no other such collection in the United States, and that there is only one in Europe which is equally valuable. Probably we

ought not to have expected, therefore, that the use of all could have been learned near Hoboken in so short a time after they were imported. At all events, we found no fault, but, on the contrary, tried to be as appreciative as possible. Apparently, by way of rewarding us for this, the members of the faculty entertained us, in turn, with eulogies on the genius and learning of each other. After we had learned that all were discoverers, and famous as such the world over, we were shown a large number of newspapers—chiefly those published in our scientific villages—each of which contained a long and learned article on the wonderful progress of science in the United States, but especially near Hoboken. Now, when it is borne in mind that we had to endure all this, and a good deal more, before we were conducted by the head of the institution to hear his own lecture, so that our astonishment and admiration might be complete, we think it can hardly seem very strange after all that tired Nature's restorer should attempt to come to our relief even against our will.

But, to speak seriously, we do not refer to the operations of our Hoboken scientists, because we regard them as more remarkable than those of other scientific faculties which we have met from time to time in different parts of the country.\* Especially must it be admitted that there is nothing peculiar in their performances, when compared to those of the faculties of institutions founded or controlled by railroad companies.

But our scientists possess many advantages over our classical professors. The latter have few or no perquisites; their opportunities for becoming famous are very limited. It is far otherwise with our scientists, who, in order to drive a

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\* Did we deny, however, that there are polytechnic schools in America which are worthy of the name, we should incur the charge of injustice. The engineers bearing the diploma of the Rensselaer Polytechnic Institute, at Troy, compare favorably with the best in the world. Pennsylvania, we are pleased to add, has the advantage of a similar institution—namely, the Polytechnic College at Philadelphia. Each of these has at its head a practical scientist, in the best sense of the term—one who seeks no fame, and whose highest ambition it is to send forth into the world as many thoroughly trained civil and mechanical engineers as possible.

handsome, exoteric business, have only to turn their attention to analyzing useful commodities, or commodities which, if they are not useful in the strict sense of the term, are at least "popular." This is true, for example, of most preparations for the human stomach, whether in a solid or liquid form—especially is it true of medicines which are claimed to cure all manner of diseases. But it is not necessary to enter into particulars in order to show that in more than one sense our scientists have a rich field in which to operate. Then as to the matter of fame. It is not generally known to the unscientific world that there are weekly or monthly papers published in the chief capitals of Europe, in which those in any part of the world, claiming to be the votaries of science, can have any accounts of their researches which they may prepare and send, or have prepared and sent for them, published at a certain rate per column. The extent to which this contrivance is had recourse to by our scientists would seem utterly incredible if the facts were mentioned. Then it is well known how much reverence our own newspapers have for "scientists;" our appreciative editors not only give them handsome notices from time to time, but also frequently quote the *Comptes Rendus* of European journals, apparently without the least suspicion that they are merely quoting the scientist's own estimate of his performances.

But our pile of manuscript admonishes us that we have already far transcended the limits we had prescribed for this article. There are many, we are aware, who would have much preferred that we had stopped at the end of the third page, and quite a goodly number who would have been still better pleased had we said nothing whatever on the subject. But both classes have their remedies; at least, they have their sources of consolation. Lest any of them may be too stupid to understand this, we will aid them, ourselves, with a suggestion or two.

Who is ignorant of the fact that there are some small weekly and monthly papers, issued in New York, that are ready to give "satisfaction" on the most moderate

terms to any one feeling aggrieved? Since one can have his revenge of us at any price from two dollars up to fifty, according to the amount of mud and other unsavory things he wishes to have thrown at us, he deserves to die of the spleen if he fail to avail himself of so cheap a contrivance. Surely there is no college president who cannot afford so small an outlay even during the "hard times," especially as he can pay, at least half, "in trade." Thus, for example, let him only give \$5 cash, and the balance in the shape of an LL. D. or Ph. D., and he can have any amount of garbage thrown. At the same time, he can have his superior qualifications as an educator, including his unfathomable learning, demonstrated beyond cavil.

If the aggrieved party should be so unsophisticated as not to know where to apply, we would give him a hand in that also. At the present moment we cannot recall the precise title of the luminary which seems to devote most attention to this sort of work; but we think that a satisfactory response may be confidently expected, if a letter, properly lined, be addressed as follows: "To the Publishers' Circular, Special Puffer, and Tammany Hall Vindicator," etc., etc.

We are all the more willing to offer this information to all whom it may concern, from the fact that on a recent memorable occasion we were kindly favored with three warnings before a particle of the prepared mud, or garbage, was thrown at us. Three times we were informed that our advertisement would only cost \$3 in the illuminator, and that for this small outlay we might calculate on reaping advantages far too numerous to be mentioned here. And, in order that we should have no further trouble, but furnish the cash, not only was the advertisement placed in our hand ready for insertion, but also a handsome envelope with the full address printed on it in large capitals. Since we (not being of an enterprising turn) did not avail ourselves of the privileges thus offered us—have never done so—we had no right to be surprised at receiving a marked copy of the illuminator soon afterward, and learning from it, among other horrible

things, that, without having the fear of God before our eyes, and with malice aforethought, we basely prefer our friends to our enemies; that we are guilty of the depravity of being older than we ought to be; and that, worse than all, if possible, there is a certain world-renowned educator, one to whom the greatest authors of Europe look wistfully across the Atlantic for academic honors, whose genius we are incapable of appreciating.

We ought, perhaps, to blush in pleading guilty to all this. So it is, however. It can hardly seem strange, then, that, instead of entertaining any resentment against the illuminator alluded to, we advise all presidents, chancellors, and head-masters, all insurance managers, all quack doctors, etc., who feel aggrieved for any liberty we have taken with their performances for sixteen years past, to apply at once to the editor thereof. We would urge that all convenient haste be made, lest it may be too late.

When the life of such an illuminator depends on the goodwill of a firm of iron-mongers, it must be admitted that its existence is precarious, at best; for, although the gentlemen referred to have proved, by the tender feelings they have evinced in this case, that they have hearts which are much softer than the cast metal in which they deal, yet the affinity between pig-iron and puffery is hardly strong enough to inspire much confidence as to the durability of the amalgamation.

We may seem rather gloomy in our forebodings; it may be urged that we are unduly prone to give an unfavorable prognosis. But we judge from experiences in the past, as well as from present symptoms. For sixteen years we have seen at least half a dozen of similar illuminators come into existence, make a great splurge, act as puffer and henchman for a few years, and then sicken and die. Curiously enough, there is not one of the departed tribe which did not attempt to bite us while it was in the throes of death, as if it had been seized with the veritable *rabies canis*.

The present case may form an exception. Still, we would advise the aggrieved parties to have some other organ in view,

although, if they expect to intimidate us, or prevent us from making one criticism, or from laughing at one pretender, or charlatan, no matter what airs he assumes, or how much money he has at his back, we can tell them, in advance, that, if the whole canine species were set to bark at our heels at once, we would pursue our course, performing what we conceive to be our duty, just as if nothing had happened. To us it is no new discovery that any one who has opinions of his own, and dares to express them, especially if he exposes to derision and scorn those who have money, may be compared to the flying-fish, which if he rises in the air will be devoured by the buzzards or vultures, and if he dives in the sea will be swallowed by the pikes or sharks.

#### NOTICES AND CRITICISMS.

##### HISTORY.

*La Défense de Paris* (1870, 1871), par le Général DUCROT. Tome première. 8vo, pp. 498. Paris: E. Dentu. 1875.

• THE too common disposition of defeated combatants to throw the blame of their failure on individuals, and especially on those in whom they had placed most confidence in the time of trial, has elicited from General Ducrot this statement of the measures which he took for the defence of the capital of his country at the time when the defeat of her regular armies had placed it apparently at the mercy of the invader. Having escaped from Pont de Musson on the eleventh of September, 1870, he arrived at Paris on the fifteenth, and the statement received by him from General Trochu indicated a condition of affairs which might well have appeared desperate. The enemy was advancing by forced marches; the city was ill-armed, deficient in provisions, in powder, in ammunition, in projectiles of every kind. He concluded with the melancholy remark,

"Nous avons beaucoup d'hommes, mais peu de soldats."—p. 1.

At the very outset, there was a difference of views between the governor and the general. Trochu was disposed to abandon all the outposts, and concentrate the defence on Paris and its immediate environs. Ducrot was of a different opinion. The fortified heights around Paris, he felt, were of the utmost importance to preserve, not only for purposes of defence, but on account of the terrible advantage which they

would confer on the enemy should they fall into their hands. He, accordingly, determined to continue to hold the outside fortresses—especially Montretout, Meudon, and Châtillon. The result of this determination has been urged against him by the press of France in support of their strongest charges; but a dispassionate perusal of his own statement will render it at least doubtful whether the fault lay in his judgment, or in the course of those whose duty it was to sustain him.

One fact is very clear from the account of General Ducrot's first inspection of the works around Paris. The Parisians had, up to this moment, never realized the possibility of their armies being thoroughly defeated and their city in imminent danger. They were proceeding leisurely to erect fortifications which should endure for all time, and were, in the mean while, losing time in discussions, in jobbing contracts, and questions of a pecuniary nature. This fact explains their unprepared condition. At Montretout, the general was struck with the exposed character of the open space between the fortifications. Here the officer in command informed him that it was proposed to erect a redoubt of solid masonry, covered with earth. The time required for its construction was twenty days or a month. The general observed that they were in a position where it would be necessary to count by hours, not days, and ordered an earth-work to be thrown up in the course of that very night.

"The colonel remarked that, if so much haste were required, he had not the requisite workmen; that the few laborers whom he had demanded high wages, and would work very little; night-work they absolutely refused."

At Meudon, the laborers had actually abandoned the work. At Châtillon it was the same. All supposed that they had plenty of time, and were wasting time and money in the endeavor to construct permanent works. General Ducrot, however, persisted in occupying these heights, and, on the seventeenth of September, succeeded in placing the fortress of Châtillon in a position of defence. He then sent out a detachment to reconnoitre, with instructions not to return until they should have exchanged shots with the enemy. This detachment brought back some prisoners (officers), and the news that the German army was on the road to Choisy-le-Roi. On this day occurred likewise the first skirmish at Montmesly.

"Nos jeunes soldats voyaient le feu pour la première fois; beaucoup même n'avaient jamais tiré un coup de fusil."—p. 4.

The only object of this skirmish, however, was to ascertain whether the enemy were actually investing Paris, and from what direction. This having been attained, the general accordingly ordered a retreat. On the eighteenth of September, Montretout and Meudon were placed in the same condition as Châtillon. Small, advanced guards of the Prussians appeared in sight on that day. The general appears, by his

own account, to have been outwitted by these troops, for, while exerting himself to prevent their occupying Pointe de Trivaux, a farm on which they had made a feint of moving, he allowed them to secure their real object, which was to take possession of the farm of Dame Rose, which lay on the border of the forest of Meudon, and formed a desirable base of operations.

On the nineteenth, a letter arrived from General Trochu, showing that he had no faith in Ducrot's ability to hold the outposts. The battle of Châtillon occurred on that day—a disastrous one for the French in many respects. The Zouaves, terrified by the falling of a shell, took flight; some of them were re-assembled and forcibly driven back to the scene of action, but their panic was desperate, and they immediately broke and ran.\* In the mean time, General de Caussade, who was stationed at Clamuset, witnessing the flight of the Zouaves, and not hearing the cannon, concluded that Châtillon was evacuated, and accordingly abandoned his post and returned to Paris. A blunder made by another general (Appert) caused the extreme left of the army to be uncovered. Accordingly, General Ducrot was obliged to evacuate Châtillon and fall back upon Paris. The cannon might have all been saved; but, by another blunder, the carriages which were stationed below had been abandoned in the panic by the drivers, who had carried away their beasts with them. Accordingly, they were left to the enemy.

General Ducrot contends that, notwithstanding its disastrous issue, the defence of Châtillon had an effect in the main favorable to the French cause. The very fact of the strong resistance made at that point surprised the enemy and served to hold them in check. They had also sustained heavy losses, which were sufficient to convince them that if they attempted a general attack on Paris they would encounter a fierce resistance, and might prove unsuccessful. This view he sustains by the following extract from a letter of M. de Chambordy to Jules Favre, dated September 25th:

"Il paraît certain que les Allemands ont beaucoup souffert devant Issy, qu'ils ne s'attendaient pas à la défense de Paris, et qu'ils en sont troublés."—p. 65.

He admits that more could have been effected had General Trochu visited Châtillon, as he promised. Had he seen that the position was retained, he would undoubtedly have ordered forward the troops which

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\* "Le général Ducrot arrive au galop, se jette au milieu des fuyards, les interpelle, les menace; les officiers de son état-major courent après ces hommes entassés comme un troupeau de moutons; on leur barre la route, on les ramène, on les reforme, et le général les lance dans la direction de la ferme de Dame Rose; mais ces malheureux ont à peine fait une centaine de pas, qu'à la vue de nouveaux obus, dont un blesse cinq d'entre eux, ils s'enfuient à toutes jambes à travers les bois; affolés, perdus, ils descendent à toute vitesse les pentes qui conduisent à la Seine; la plupart rentre à Paris où, dès huit heures du matin ils jettent la terreur en criant partout qu'on les trahit."—p. 29.

had been stationed to defend the rampart of La Bièvre on the Seine; but, deceived by General de Caussade's retreat into Paris, and supposing Châtillon abandoned, he did not keep his appointment. The Prussians were, however, sufficiently alarmed not to venture on a general attack.

"All that the Germans have published to this day on the subject of the siege of Paris establishes this preoccupation on their part."—p. 68.

On the twentieth of September General Trochu concluded to evacuate all the outposts, and concentrate his efforts on the defence of Paris and its immediate environs. Accordingly, the bridges were torn up, except the Pont de Neuilly, which was necessary to maintain communication with Mont Valérien, and the railroad bridge at Asnières.

The governor's preparations were made on the assumption that the enemy would either attempt a general assault or institute a regular siege. In fact, they had not the intention nor the means to do either. They counted on the weakness and inexperience of the government, and the internal divisions among the Parisians, and intended to wait for the critical moment, which they thought could not be far off, when Paris should fall into their hands from sheer inability to sustain itself.\* Accordingly, while the French were placing Paris in a state of defence, the Germans were doing the same with the abandoned fortifications. Each party, in fact, was standing on the defensive, and waiting for the other to begin.

General Ducrot gives a statement of the resources of Paris, which, he remarks, consisted of various elements, which, so far from being in accord, were antagonistic, ill-directed, and ill-employed. The number of men was ample, but the quality far inferior to the quantity. The marine department furnished valuable auxiliaries, and they had the 13th and 14th corps of the regular army. The 13th comprised two tried regiments—the 35th and the 42d; but the residue of the corps, and the entire 14th, were composed of raw recruits.

"Qui n'avaient ni cohésion ni esprit de corps."—p. 77.

The officers of these corps were as raw as the men. Altogether, the infantry amounted to from seventy-five to eighty thousand men, of whom scarcely a fourth could be considered genuine soldiers. The regular cavalry amounted to about five thousand in all, of which one division consisted of tried troops which had returned from Meaux. At this time they had only seven tried batteries of artillery, and twenty-three of new formation, but before the siege was ended their number was increased to ninety-three. In addition to these troops of the line, there

\* "Résolus à attendre suivant l'expression de M. de Bismarck, le moment psychologique, ils pensaient que ce moment ne saurait tardir; car ils n'entrevoient point la possibilité d'une résistance sérieuse et de longue durée de la part de la population Parisienne."—p. 72.

were 180,000 mobiles, all armed and equipped. Of their character, General Ducrot gives the following brief and pointed *résumé* :

“Le Parisien, quand il est *soldat*, est un très bon ou très mauvais soldat, surtout en campagne ; mais quand il est à moitié *soldat*, comme cela avait lieu dans la mobile et dans la Garde Nationale, il est toujours un détestable soldat, car ses instincts d'indiscipline et de révolte priment constamment ses qualités naïves de courage et d'audace.”—p. 38.

They were disorderly, joined in all popular demonstrations, left their camp at pleasure, so that in every parade nearly a third of the men were absent. On one occasion they refused to march to their post, because it was not sufficiently protected ; on another, a battalion of them forced the gates of Mont Valérien, where they were stationed, disbanded and returned to Paris, while the combat of Châtillon was actually in progress. The Garde Mobile from the provinces usually did its duty ; but the bad habits which its members generally contracted in Paris thinned its ranks as much as the fire of the enemy.\*

But the most intractable of all elements was found in the Garde Nationale. This had never been organized for military duty, and was, moreover, in process of reorganization at the time of the siege, and in no condition to serve efficaciously. Unfortunately, the act of August twelfth had authorized every citizen to demand arms of the government for the defence of his hearth, his country, and his civil rights. Under this act, over three hundred thousand men enrolled themselves in the Garde Nationale, of whom at least thirty thousand were discharged convicts, ready for any act of plunder, murder, or arson. The arming and enrolling of these men took away needful munitions, and turned men who might have been useful as workmen into worthless and detrimental soldiers. Moreover, it interfered with the recruiting for the army. A general draft of men hitherto exempt having been made, Gambetta enrolled them all in the Garde Nationale, announcing that they were as much their country's defenders as the soldiers. Thus, nearly sixty thousand recruits were lost to the army.

General Ducrot, seeing that no immediate attack was in contemplation, estimated that the wisest course was a passive resistance, holding the enemy in check before the walls, and gaining time for armies to be organized in the provinces, and the formation of an army within Paris, which would be able and ready to take the field so soon as an army in the provinces should be prepared to co-operate with them.

But the Garde Nationale had been flattered until it believed itself superior to the regular army. When they had actually acquired no knowledge except of military manœuvres, they clamored to be led into action. They fancied themselves as superior to the enemy in every

\* “Ils encombraient les boulevards et les cafés ; l'ivresse et la débauche causaient presque autant de ravages dans leurs rangs que le feu de l'ennemi.”—p. 87.

other respect as they were in number, and no one dared tell them the truth. Of course, in after days, when tried and found wanting, they could not believe that the fault lay in their own inefficiency, and accused those to whose flatteries they had listened of having betrayed them.\*

The Garde Nationale was of some use in defensive operations, by holding the ramparts and leaving the regular army free for active work ; but in offensive it was worse than useless, only encumbering and demoralizing the Garde Mobile. As an instance, when in the trenches, they fired without orders every night, until they had exhausted their ammunition. General Ducrot endeavored to keep them apart by sending the Garde Mobile on separate duties, but the Garde Nationale insisted on accompanying them, and he had not power to refuse them.

The armament of Paris was sufficiently strong, but the soldiers were not well acquainted with the management of the *mitrailleuse*. The supplies of powder and projectiles were deficient, and that of provisions contingent. General Ducrot, seeing that the enemy were not meditating an attack on Paris, proposed to escape in a balloon, and organize an army in the provinces which should march to the relief of Paris, but the governor would not hear of it. He said there was no one to defend Paris but Ducrot. Gambetta was afterward sent out for the same purpose. Ducrot soon comprehended that assistance from without could not be counted upon, and that all that could be done was to try and break the iron-circle now gradually encompassing Paris and preparing to reduce it by famine.

The remainder of this volume is occupied with accounts of the exploits of the 13th and 14th corps during the months of September and October. Under General Ducrot's directions they would appear, in the main, to have done well. On a careful perusal of this statement, assuming the facts to be, as they probably are, correctly stated, we shall feel, on the whole, surprised that an army, situated as was that of General Ducrot, and composed of such materials, should have accomplished so much rather than so little.

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*Illustrated Rambles in Bible Lands.* By Rev. RICHARD NEWTON, D. D. 8vo, pp. 254. Philadelphia: American Sunday School Union. 1875.

INDEPENDENTLY of religious associations, Palestine possesses an interest for the reader, as the region of which we have the most ancient historical record, and with whose name we have been familiar from our childhood. From the period of their first acquaintance with

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\* "Convaincu qu'elle avait fait tout ce qui était nécessaire pour triompher, elle chercha au dessus d'elle les causes de sa défaite, et elle accusa de l'avoir trahie ceux qui étaient seulement coupables de l'avoir flattée."—p. 105.

literature, the recollections of most readers are associated with ideas of the Holy Land, its cities, mountains, lakes, and rivers; with the shepherds of Canaan, and the kings of Judah and Israel. Without any especial pretensions to piety, it is, therefore, with no small interest that we take up an account of this ancient region from the pen of a recent visitor, in which the principal localities are so graphically portrayed, and in such simple, clear language, as to bring them within the easy apprehension of the youthful readers for whom the work is chiefly designed.

The first spot in the Holy Land at which Dr. Newton touched is Jaffa—the only port worthy of the name in Palestine, Beirut being the port of Damascus in Syria. Jaffa is believed to be one of the oldest towns in the world, being the Joppa of Scripture, from which Jonah sailed for Tarshish. To our modern ideas of a port it bears, however, little resemblance, being absolutely without a harbor, and vessels being obliged to anchor in the open sea, so that when the weather is rough, steamers have to pass by it, in consequence of which, it will sometimes be a month without receiving any mails.\* Yet, though so inferior a port, this ancient town has continued in comparative prosperity, while Tyre and Sidon, which once controlled the commerce of the world, are little more than stations for fishermen.

In Jaffa is still shown what is said to be the house of Simon the tanner. "It is an old-looking stone house, built on the rock near the sea."† Its locality is shown in one of the illustrations. The country around Jaffa is better cultivated than most parts of this region, and the journey thence to Jerusalem is over a fine macadamized road, the result, as Dr. Newton informs us, of American enterprise.

The most interesting part of our author's journey was his visit to Jerusalem, although of the old city but little is left. One of the most curious features of the modern town mentioned by him is the Wailing Place, a remnant of the wall of the old temple built by Solomon, whither the Jews repair to bewail the misfortunes of their nation. Here they also read their Bible and offer their prayers, believing that the sanctity of the ancient temple attaches to its ruins. So long has this practice continued that the stones are worn in several places by the hands and kisses of the people.

The genuineness of the localities of the Crucifixion and Burial, both of which spots are said to be covered by the church of the Holy Sepulchre, has been called in question. The principal objection to them is that both those localities were outside the gates, while the church is within the limits of the present city. But when we consider that the ancient Jerusalem was levelled to the ground, and was not rebuilt for some centuries, it seems by no means improbable that the modern city might

\* P. 31.

† P. 34.

embrace within its inclosure areas which lay formerly without the gates. It is not strange, however, that the numerous impostures which are exhibited in this place should create a feeling of general scepticism as to the whole tradition.

"There is the altar of Melchizedek, the chapel of St. John, the tomb of Joseph of Arimathea, the sweating pillar against which Jesus is said to have leaned on the way to Calvary, the chapel of the division of the garments, and of the finding of the true cross, the place where Mary Magdalen stood, the altar of the penitent thief, the marble chair in which St. Helena sat, *the sacred spot which marks the centre of the earth, and from under which the dust was taken out of which the body of Adam was made*, the rent in the rock whence his skull leaped out, and so on, and so on, till we felt our hearts sicken within us."—p. 47.

The same doubt applies to the Via Dolorosa. Dr. Newton remarks that when the city was rebuilt, it was impossible to tell where Pilate's judgment hall had stood.

About the mosque of Omar, however, there is no such uncertainty. Erected originally as a Christian temple, and on the very highest point of the hills on which Jerusalem is built, there can be no doubt that it covers the site of the ancient temple. The rock itself, said to have been the summit of Mount Moriah, is enclosed within the mosque. This the Jews say is the spot where Abraham offered up Isaac, and the Mohammedans pretend that Mohammed ascended therefrom to heaven, and point out what they say is the impression of his foot, and of the angel Gabriel's fingers! (p. 51.) More certain is it that this was the site of the great altar in Solomon's Temple; and beneath it are passages connecting with the Valley of Kedron, evidently intended for the purpose of carrying away the blood and refuse of the sacrifices.

The Valley of Hinnom, the Pool of Siloam, the Garden of Gethsemane, and the Mount of Olives, all which our traveller visited, are localities susceptible of identification. The road from Jerusalem to Jericho appears to be as dangerous for travellers now, as it was in the days of the good Samaritan. At Jericho, Dr. Newton was shown the fountain of Elisha, and in its neighborhood a mountain called the Mountain of the Temptation—on what authority it is difficult to say. A deeper interest surrounds the river Jordan, although the author's graphic description of it will disappoint the reader. "It is a muddy stream that rolls in a narrow bed between steep banks,"\* crooked and broken with rapids, so that navigation on it is impossible, and useless even for irrigation, besides lying so deep below its banks as to be invisible in the landscape. Bethlehem was, of course, visited, and the Convent of the Nativity, which was erected by the Empress Helena in the early part of the fourth century, and is, therefore, "the oldest monument of Christian architecture in the world."† The nave, however, is all that

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\* P. 83.

† P. 97.

remains of the original temple. The cave, which is the reputed scene of the nativity, is covered all over with marble. This, though dictated by a feeling of piety, the reader will agree with Dr. Newton, is a mistake. It would have been far more impressive had the spot been left in its original condition. The structures of most undoubted antiquity which our tourist visited, are the pools of Solomon. These enormous reservoirs are still used for the purpose for which they were originally constructed, namely, the supply of Jerusalem with water.

After leaving Jerusalem, Dr. Newton proceeded northward to Samaria and Galilee, visiting Shechem and Jacob's well, near which he saw an inclosure said to be the burial place of Joseph. Nablus stands on the site of Shechem, and in its synagogue is preserved a copy of the Samaritan Pentateuch, which is said to have been written three thousand five hundred years ago. On the site of Samaria is a village of some sixty houses, "in whose rude walls may be seen many a remnant of ancient taste and splendor."\* At Nazareth there are numerous localities reputed sacred, but there can be little doubt that they are altogether fabulous. The beauty of the lake of Gennesareth will not efface the melancholy impression produced by its utter desolation. The Roman tower of Tiberias still remains, but is decaying and filthy in the extreme. Ruins are shown which are supposed to be those of Capernaum, Chorazin, and Bethsaida, but the sites of those cities cannot be determined with accuracy.

With Damascus the strictly Hebrew localities terminate, as the ruins of Baalbec are evidently of Grecian origin, and Beirut is a modern seaport. But the reader will accompany Dr. Newton with interest in his visits to Rhodes and Cyprus, and his sketches of the sites of the seven churches mentioned in the Revelations. Of these, three, viz., Ephesus, Sardis, and Laodicea, have entirely disappeared; the others are still moderately thriving towns.

Dr. Newton has looked upon all those scenes with the eye of a scholar—with a thoughtful and judicious discrimination, avoiding equally the credulity of the ignorant and the skepticism of the mere caviller. He has accordingly furnished a most interesting work; one which, appearing at this season, will prove a more desirable gift-book than many which cost three times its price. The pictorial illustrations which adorn it particularly adapt it for this purpose. They are far above the average, and, in fact, better than many which we find in works of the highest pretensions.

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\* P. 123.

*Might and Mirth of Literature. The Might and Mirth of Literature: A Treatise on Figurative Language, in which upward of Six Hundred Writers are referred to, and Two Hundred and Fifty Figures Illustrated; embracing a Complete Survey, on an entirely New Plan, of English and American Literature, interspersed with Historical Notices of the Progress of the Language, with Anecdotes of many of the Authors, and with Discussions of the Fundamental Principles of Criticism and of the Weapons of Oratory.* By JOHN WALKER VILANT MACBETH. 8vo, pp. 530. New York: Harper & Brothers. 1875.

WE cannot say that we were, in the strict sense of the word, disappointed on the perusal of the work bearing the above remarkable title; inasmuch as the term disappointment would imply a certain degree of anticipated satisfaction; and our previous experience of authors who introduce their works to the public with such grandiloquent titles and such extensive promises led us in this instance to expect very much such a performance as we have found. Genuine merit is generally modest; and we do not recall a single eminent author who has not been content to trust his work to the judgment of the public on its own merits, without availing himself of the title-page for the purpose of a preliminary eulogy. It must not, by any means, be supposed that the puffing of his own performance by our present author is limited to the title-page. We encounter it again in the "introductory notice," which, constituting a special page, announces that

"The object of this volume is to create and fully *equip* (*sic*) a new branch of study; to discuss figures of speech more thoroughly than has ever been done; to *urge* upon pleaders, preachers, and *all who write or speak English*, many important practical *advice*s (*sic*); to comment specially on Shakespeare, Milton, Demosthenes, and the Bible; and present a wide review of English and American literature; and to make the whole subject *as amusing and laughter-exciting as it is instructive*."

That the work in question is at least *as* amusing and laughter-exciting as it is instructive, no one will deny. This tone of self-laudation is continued through a long introductory chapter, in which we learn that the notable scheme by which Professor Macbeth proposes to carry out his vast conception, is

"by taking a wide survey of the American and English writers from the Anglo-Saxon time until now, not from many unconnected points of view, but from strictly one point."—p. 37.

This "strictly one point" is figurative language, the study of which our author pronounces to be the key to all ancient and modern writers. He further recommends, as the smallest *apparatus* (*sic*) essential to the subject, the Bible, Shakespeare, and Paradise Lost: also the writings of

Demosthenes, "to which, *freshly translated by your author*, frequent reference will be made" (p. 51). By way of introducing us to the study, our author asks permission to

"hang round the portals of the work a bunch of miscellaneous figures, in the hope that their fragrance may induce you to enter."—p. 47.

Here we may as well state a fact which the reader is tolerably certain to discover for himself, that this "hanging round the portals" is strongly characteristic of the entire work. Some space, it is true, is occasionally devoted to dissertations on the figures of speech; but this instruction, at all times vague, and generally far from accurate, is so lost under a cloud of extracts—sometimes illustrating the subject, and at others quite the reverse—that it leaves little or no impression on the mind of the reader—a circumstance which, however, from the specimens of the so-called instructions we have culled at random, we should say is rather fortunate than otherwise. We should add, that the majority of these extracts are either very familiar, so well known, in fact, as to be utterly trite, or else of a thoroughly commonplace character, gathered from the minor authors, and not always in the best taste. One flower from the bunch, which, at the outset, is "hung round the portal," will suffice as a specimen. It is from the pen of the Rev. Henry Ward Beecher, and possesses any thing but an agreeable fragrance:

"It is not well for a man to *pray cream* and live *skim milk*."—p. 48.

When we come to the body of the work, we are, at first, a little surprised at the variety of phrases or modes of expression which the professor has embraced within the term "figures of speech." We have "figures of spelling" and "figures of syntax" occupying more than half the volume, and all of which we have to wade through before arriving at the legitimate "figures of rhetoric." In the way of figures of spelling we have such specimens as "he'd" for "he would," "'Nel-ope" for "Penelope," "'proaches" for "approaches," "'sdeigned" for "disdained" (p. 56), all mentioned, not as simple instances of aphæresis, but as possessing in themselves a peculiar force and beauty! As a sample of this *figure*, aphæresis, or, as our author elegantly phrases it, "front-cut," he gives us Harrington's epigram:

"Treason can never prosper. What's the reason?"

For if it prosper, none dare call it treason."—p. 118.

Most readers would see in this aphæresis (what's, for what is) a simple sacrifice to the necessities of metre. Our author, however, gravely assures us that it is a peculiar ornament, giving point and imparting wit to the entire epigram. So with "I'll" for "I will," in a quotation from G. P. Morris's "Woodman Spare that Tree," "don't" for "do not," in an almost forgotten and very trashy song of Bayly's, "Why *don't* the Men Propose?" of which we are favored with a stanza; and,

what will be still more novel to most readers, the use of "de'il" for "devil," and "ca'd" for "called," by Burns. These are generally supposed to be the regular Scottish pronunciation of the words, but here they are gravely set forth as instances of the poetic figure "synæresis," or "middle-cut."—p. 66.

Over apocope, or "end-cut," our author goes into positive raptures. He says:

"Even in sacred things apocope comes in with wondrous away. Who but has felt the potency of the psalm-singer's apocope? In a Brooklyn church, the choir began:

'My poor pol—my poor pol—my poor polluted heart.'

"Another verse commenced thus:

'Go in the pi—go in the pi—go in the pious throng.'

"Our readers are by this time convinced that even these slightest figures are of gigantic worth."—p. 71.

Were it not for the connection our readers would by this time be pretty effectually convinced that the learned professor was quietly making fun of them, and would be inclined to address to him the classic remonstrance, "Are you a fool, or do you take me for one?"

The use of *amid* for *mid* is given as a sample of the figure epenthesis, and as an excuse for introducing a long quotation from Mrs. Sigourney. This figure will, we are inclined to think, be found in most dictionaries as an English word. Of the figure *annezation*, we have an example in the negro's speech: "If you floggee, floggee; if you preachee, preachee" (p. 81); this figure, we would suggest, is of rather frequent occurrence among our colored brethren. Our author dwells on the endearing effects of the letter y, in such words as "deary," and "purloins" (*sic*) from Shakespeare—William Shakespeare he is careful to state, lest the reader should mistake the authority—the use of *ironical* for *ironic* (p. 83), which is the usual English expression let the dictionary decide. As a specimen of diæresis we have, "*not ever*" for "never," although most philologists reverse the process, and say that *never* is the contraction of "not ever." But the most delicious "figures" of all to which the professor introduces us are the use of "umbrell" for umbrella, and the Irish pronunciation of *beast* and *squeal*—"baste" and "squal" (p. 89).

It will be seen by this time that our author is at no loss for figures; in fact, that, according to his view, we must be all our life talking figures, as Monsieur Jourdain was prose, without knowing it. However, the professor has undoubtedly favored us with one new figure, which he styles "intentional misspelling." While there is so much *unintentional* misspelling still rife in the world, it will be difficult for ordinary readers to recognize the merits of such a figure as this.

In the way of "figures of syntax" we have the *asyntedon*, or omis-

sion of the conjunction *and*; *polysyndeton*, or its frequent repetition; *paradiastole*, or the use of the word *neither*; and the omission of the verb, a figure to which we are not sure that our author assigns a name, but of which he furnishes a singularly unfortunate specimen in the following quotation from the "Bay of Biscay:"

"Our poor deluded bark!  
Till next day, there she lay."—p. 103.

We should be glad to learn *what* verb has been omitted in these lines. If "bark" be in the vocative, it requires no verb, as so profound a grammarian ought to be aware. If in the nominative, it is in apposition with "she," and has a verb provided. Still less happy, if possible, is the extract from Addison's hymn, given as a sample of the *figure* pleonasm:

"The spacious firmament on high,  
With all the blue ethereal sky,"—p. 129.

which most rhetoricians would style not a pleonasm but a tautology. And finally *me-ism* (p. 133), or the use of the word *me* as it occurs in Shakespeare and old English writers, and which is generally recognized as an old English idiom.

It is difficult to say for what reason, but in this part of the work the professor favors us with a specimen of English hexameter—of his own composition—a translation of the opening lines of the *Æneid*:

"Arms and the hero I sing who first from the shores of Ilium,  
Exiled, fate-driven, came to Italy and to Lavinium."—p. 158.

We should feel much indebted to the learned professor if he would scan the above lines for us according to the rules of prosody, and show us which are the dactyls and which the spondees. We have hardly space to appreciate the professor's figures of rhetoric, though we cannot overlook his introduction of "I am the door" as an instance of simile (p. 159). But we think that our readers will have had enough of our author when they have read the metaphor, metonymy, or metalepsis (we forget which he styles it), with which he favors us, and which he complacently assures us is his own composition:

"Lama Sabachthani, why hast Thou forsaken me? is one of the dying words of our Saviour. Let us use the cry uttered by a person for the person himself, and call the Great Martyr the Lama Sabachthani of lost mankind." (!)—p. 220.

Absurdity—to call it by no harsher name—can no further go. Had the professor been content simply to print his commonplace book of quotations for the benefit of those who needed a volume for reference, it might, though no novelty, have been of some use. But when he seriously undertakes to furnish a new text-book, to *equip*, as he says, a new branch of study, and give advice to all who write or speak the English language, and under that pretence interlards his quotations

with the tritest platitudes under the name of "instructions," his effrontery becomes so gross as to affect the stomach in a manner by no means agreeable.

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*Prose Quotations from Socrates to Macaulay, with Indexes.* By S. AUSTIN ALLIBONE. Svo. pp. 764. Philadelphia: J. B. Lippincott & Co. 1875.

In the present volume Mr. Allibone has given us something much more valuable than its title would imply. The ordinary dictionaries of quotations, consisting, generally, of brief, detached passages, and intended for purposes of reference, are not of much real value, except for the convenience of such as have already become well acquainted with the authors quoted. As treasuries of fine thoughts and beautiful images, they will always possess a certain charm; but it is rarely safe to make use of the detached quotations which they furnish, apart from the context, without a previous knowledge of the passages from which they are derived; and the temptation which they offer to quote indiscriminately from authors with whom the party availing himself of them is not familiar, is the secret of many of the misapplications which we encounter in superficial writers.

In the present work the author has adopted a course altogether different. Instead of detached fragments, he selects entire passages of a length and completeness sufficient to impart to the reader the pleasure derived from the perusal of the authors themselves. Under the head "Addison," for instance, we are enabled to enjoy choice portions of Macaulay's beautiful essay on the subject, and are at home, at once, with two of the most eminent English essayists. We have a full account of the honored writer of the last century. We have, in a small compass, his daily life, a glance at society and politics in the reign of Queen Anne, a brilliant review of his writings, and a graphic, touching account of his last hours, all told in the glowing language of one who is fairly styled the prince of modern essayists. So on many other subjects which are not usually considered to come within the scope of a work of this nature. Take, for example, the drama. Most dictionaries would present, under this title, little more than a collection of aphorisms, *bon mots*, or pithy sentences, in which the subject forms little more than an excuse for the epigram. Here, on the contrary, we find valuable selections from the best writers, in the perusal of which we obtain information on the history of the stage, criticisms on the dramatists of different periods, and much besides that is valuable to the student of dramatic literature. In short, the volume is not so much a dictionary as an encyclopædia, with this advantage over the ordinary works of that

name, that instead of the author's own language, we receive our information through the medium of the best writers of every period.

For young readers the volume will possess another indirect but very positive advantage. By exhibiting passages of sufficient length and importance to convey an adequate idea of the authors themselves, it is calculated to awaken the interest of the reader in the general productions of those writers; and will, in that way, serve as a guide to the young reader in the selection of his library, as well as in the formation of his style. Those whose means do not place a large variety of authors within their reach, will, furthermore, be gratified by finding so many of their beauties compressed into a comparatively small space, and rendered easy of access.

Mr. Allibone is already well known to the reading public by his "Dictionary of English and American Authors," an exceedingly useful work, and more recently by a Dictionary of Poetical Quotations, in which, as in the present volume, he has frequently furnished entire passages rather than garbled extracts, and in that way provided a corresponding treat for the lovers of poetical literature.

The work is appropriately dedicated to Mr. George W. Hill, of Philadelphia, a gentleman of fine culture and of amiable manners, and a veritable Mæcenas in his friendship for literary men. If every tribute of the kind were so graceful and well-merited, there would be no reason to complain of dedications; on the contrary, they might well be regarded as conferring mutual honors.

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EDUCATION.

*Twenty-third Annual Catalogue, for 1875-'76, of Bordentown Female College, Bordentown, N. J.*

WE do not take up this pamphlet for the purpose of reviewing it. We do such only in those instances in which the pretensions made are very much disproportioned to the results accomplished. Even then, if the "fair speeches and fine promises" are made in tolerably decent English, we pass the matter over in silence, except we happen to know that the public should be put on its guard against fraudulent practices.

In the present *brochure* there is nothing peculiar. Were we to judge it by the style of catalogues in general, accepting the estimate of each as to the institution which it represents, we should expect but little from it, for it indulges in no grandiloquent statements, but informs the public in a straightforward manner, and in terse, though persuasive language, what the institution whence it emanates undertakes to do for those willing to confide in its efforts.

Our readers will remember that it is no new idea on our part that it is the best educators who make least pretensions in their catalogues, and elsewhere, and *vice versa*. We have long claimed to form a tolerably correct opinion of the character of a school or college from the style of its catalogue, and we could show that we have rarely if ever been mistaken. But in the present instance we have not to depend on mere inference. We know, from personal observation, as well as from general report, what Bordentown Female College has been in the past; accordingly, we have borne testimony more than once in these pages to its faithful and efficient work.

It would, therefore, be superfluous for us to take up its catalogue now, even as a text, were it not that it has recently changed its president. The college was founded by the Rev. Dr. John H. Brakeley, who continued to direct its destinies for twenty-eight years, until the close of last college year. For some years Dr. Brakeley had been in a delicate state of health, yet he could not be induced, even by his physicians, to retire from the presidency of an institution that had become dear to him as, to a great extent, the work of his own hands, until one could be found whom he regarded as in every essential respect qualified to succeed him.

The gentleman who has proved thus acceptable is the Rev. William C. Bowen, A. M., who has had ample experience, both as professor and principal, in some of the best female seminaries of this State, and whose success as an instructor—especially in the higher branches of female education—is generally acknowledged. President Bowen is sustained by a well-selected corps of professors, male and female; but probably the one from whom he will derive the most important assistance, and who will inspire parents with most confidence in regard to the moral and intellectual training of their daughters, is the accomplished preceptress, Mrs. Gertrude S. Bowen, who also directs, with unquestionable ability, the departments of French and moral science.

It is generally acknowledged by all who know Bordentown Female College, that, notwithstanding his enfeebled health, during the past two or three years, Dr. Brakeley has left the institution an excellent prestige; but from what we know of President Bowen, and his estimable wife, we do not hesitate to predict that, if that prestige, honorable as it is, be not enhanced under the present auspices, it will, at least, be fully sustained.

We have taken all the more pleasure in bearing testimony to the high character of Bordentown College, because we are aware, from our own knowledge, that higher education in New Jersey, male as well as female, is confined within very narrow bounds. Indeed, the only respectable female institution, besides Bordentown, we have been able to dis-

cover in the whole State, is St. Mary's Hall, at Burlington, which is also beautifully situated on the Delaware, and which we took pleasure, a year ago, in comparing to Dr. Brakeley's College. Then, also, we were glad to have an opportunity of paying a well-deserved tribute to a New Jersey institution, having recently deemed it our duty to expose to public ridicule the pretensions of a certain institution at Morristown. No doubt, there were those then who thought our strictures unduly severe, if not unjust; but, as in several similar cases,\* time has fully vindicated our estimate; for in less than a year after our criticism the seminary alluded to had ceased to exist.

Our readers are aware that we are not much influenced in our opinion of a literary institution by its title, or that of its president, or head-master.† We judge it not by its name, but by the work it performs. In other words, the question with us is not, whether it be called a college, a seminary, an academy, an institute, a hall, or merely a school; but whether its standard of education be high or low; whether it really accomplishes that harmonious development of the intellectual faculties which is properly called culture; or whether it merely pretends to do so. There are many of our female colleges, so called, which are greatly inferior to institutions which are only called academies, seminaries, or even schools. We have pointed out such from time to time; but the institution under consideration is not one of them. It belongs to a different category. Thus, for example, our readers know what our estimate of Elmira Female College is. We need only say, therefore, that we entertain just as high an opinion of Bordentown Female College; and yet we do not regard its culture as superior to that of Maplewood Institute, Hudson Young Ladies' Seminary, Locust Hill Seminary; not to mention the Gannett Institute, Fort Edward Institute, Poughkeepsie Female Academy, or Mlle. Rostan's School.

We trust we need hardly say that we do not mean by this any disparagement of either college; on the contrary, we wish to indicate to our readers the honorable rank as educators, which, in our opinion, the president and preceptress of Bordentown are justly entitled to occupy.

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\* Instance Rockland Lake Female Seminary, &c.

† As an illustration of the latter fact, the reader may remember how very different were our estimates, not long ago, of St. Mary's Hall (Burlington, N. J.), and St. Agnes' Hall (Albany, N. Y.) Had we been influenced by high titles, and still higher pretensions, we should have placed the Albany institution immeasurably above the Burlington institution; but we found the New Jersey saint much more worthy of the name than the New York saint, although the latter boasts a bishop (who aspires to be an archbishop) for her altar, whereas the former is content with a modest curate for her altar.

*An Elementary Manual of Latin Prose Composition, with a full English-Latin Vocabulary.* By S. R. WINCHELL, A. M. 16mo, pp. 142. Philadelphia: J. H. Butler & Co.

WE have carefully examined Mr. Winchell's little book, and if we can claim to form a tolerably correct opinion of the essential requisites of one bearing such a title, it justly claims not only a recognition but a hearty welcome in every school in which the elements of the Latin language are taught.

We venture to say that there is no intelligent, candid teacher that devotes half an hour's careful attention to its plan, who will not agree with us that it is admirably calculated to encourage the young beginner to persevere in studying Latin. And, if we are correct in this, the book could not have a stronger recommendation, since nothing is of greater importance in an elementary text book than such an arrangement of the lessons as invests them with interest, renders them attractive, and makes them seem easy. It is because this fact is lost sight of by three-fourths of our compilers of text books, that so few students have resolution enough to go beyond the vestibule of the great, beautiful, and thought-inspiring temple of classic lore.

The "Elementary Manual" combines within convenient limits the principles of the Latin language, and the means of becoming familiar with those principles by practical use of them in composition. The copious vocabulary given in connection with each lesson, the variety of synonyms at almost every page, and the judiciously arranged "exercises" for translating English into Latin, constitute, in connection with the index to synonyms, and the English-Latin vocabulary, a feature which every competent instructor will know how to appreciate.

With the Bingham Latin Series our educational readers are already familiar. They will, therefore, have no difficulty in appreciating the fact that Mr. Winchell's excellent little book is now included in that series.

*Illustrated Catalogue of Optical Instruments.* By JAMES W. QUEEN & Co. 1875.

MANY a pretentious volume reaches our table from time to time, which we do not find half so suggestive as this slender, modest pamphlet. We need hardly say that it is not the letterpress which thus attracts us; it is not the information it contains which interests us, although much more is to be learned from it, in the form of scientific hints and precepts, than the most sanguine would be likely to expect from its title.

It is the illustrations which awaken in us, alternately, various agreea-

ble trains of thought; for, of the many instruments which they faithfully represent, there are several of which it may well be said, "thereby hangs a tale." We have often been allowed the privilege of examining the best, not only of those manufactured by the Messrs. Queen & Co. themselves, but also the most valuable of those they import. There are few intellectual privileges we value more highly. Accordingly, we have seldom spent pleasanter hours than those occupied in manipulating some of those instruments, and observing the various phenomena which they respectively exhibit.

We would not, however, obtrude our private enjoyments on our readers. We take the liberty of doing so in the present instance, only because it affords us an opportunity of answering the queries of many educational friends, in accordance with the adage, "a word for the wise."

To the astronomer a world is an atom; to the philosopher an atom is a world; and, while the telescope, on the one hand, opens to us a universe exhaustless in its immensity, in which are stars, each perhaps the centre of a solar system similar to or greater than our own, the microscope, on the other, reveals one scarcely less varied existing at our feet, in which each minute object becomes a congeries of creations, each susceptible of separate investigation and analysis. Our world thus becomes a central stand-point, from which we look upward into infinity and downward into atomic nature.

The wonders revealed by the microscope have been too long and well known to require any extended discussion. It has opened to us a universe, or rather an infinity of universes one within another. As the earth on which we move contains its living and breathing population, so does each portion of air. Each drop of the water which we drink encloses its myriads of active and sentient beings—beings not to be discerned by the naked eye, but which under the microscopic lens stand revealed to mankind. Under it we learn the composition of the down on the butterfly's wing, the structure of the most delicate petal, the analysis of the blood, and the elements which unite to form the animal frame; in fact, the minutest secrets of nature lie open to our investigation.

In speaking of the uses of the microscope, we must not forget the incalculable advantage of which it has been in surgical operations; that, by its aid, instruments have been produced of a delicacy without which it would be impossible to probe and operate among the more sensitive nerves and tendons except at the price of the most acute anguish to the patient. It has, moreover, laid bare to the eye of science all that exquisite system of muscles and nerves, the want of proper knowledge of which was in former days the source of so much suffering. It has, so to speak, humanized surgery; reduced the amount of human pain to a point which to our ancestors would have appeared simply incredible;

and, as each diminution of the suffering in the world constitutes a step in the advance of civilization, this instrument has proved an invaluable agent in the progress of the world.

The lens, this simple instrument, which in the microscope conducts us into the hidden recesses of nature, when applied in the telescope, brings the vast heaven within our ken. Thus is obtained the knowledge which has enabled the sailor to navigate the trackless ocean, and the geographer to map out the surface of the earth.

But an optical instrument, with which the general reader may be less familiar, namely, the spectroscope, has enabled the astronomer to obtain information as to the elements of the sun's composition, and to ascertain the existence in its body of metals and other elements corresponding to those of our own planet. While applying the prismatic analysis of flames to chemical analysis, Professor Kirchhoff made the discovery that flames, which exhibit in their spectra bright lines of definite refrangibility, absorb light of the same degree of refrangibility as that which they exhibit. Behind a flame giving bright lines in its spectrum he placed a brilliantly luminous substance of higher temperature in such a position as to give with the former one continuous spectrum. The compound light, emitted partly from the flame and partly from the luminous body behind it, was found to exhibit in the spectrum dark lines in place of the bright lines given by the flames alone. From this he inferred that the regions of these lines suffered more in luminosity by the absorption of the light from the luminous body than they gained by the flame. He accordingly reasoned that the outer and inner portions of the atmosphere of the sun, or the gaseous and solid or liquid portions of the body itself, might be conceived to be in the same relative condition as to luminosity as the flame in his experiment and the luminous body behind it; and thence that the *dark* lines seen in the spectra of light emanating directly from the sun indicated the presence in its atmosphere, in a state of incandescence, of those elements which when present in flames cause them to give out bright rays of the same refrangibility. He then introduced small quantities of various metallic salts into flame, and ascertained that each caused the spectrum to exhibit bright lines dependent upon and characteristic of the metal introduced—in other words, that each metal cast its own peculiar color upon the spectrum. Comparing these lines with the dark ones found in the solar spectrum, he was enabled to infer the presence or absence of the corresponding metal in the sun's atmosphere, and consequently in its body.

By this process Professors Kirchhoff and Bunsen have ascertained the existence in the sun of potassium, sodium, and various other metals. It seems strange to conjecture what would have been the sensations of the rude Phœnician mariner, whose fire of sea-weed, hastily built upon the sand, produced the first specimen of the material which we call glass,

could he have foreseen to what results his chance discovery was destined to lead. Fire drawn at will from the sun; distance in a measure annihilated; the bright points which he knew but as mere luminaries of the night brought within the scope of our knowledge, and taught to guide the sailor through that open sea of which he but timidly skirted the coasts; the secrets of nature revealed; the germs procured of that knowledge which was to develop into the wisdom of the ancient Magi and the learning of the modern philosopher; he might well have considered that he held in his hand a talisman of which fable had never conceived half the secrets nor imagination realized the powers.

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MISCELLANEOUS.

*On Nitrous Oxide.* By CHARLES JAMES FOX, M.R.C.S.L., D.S. 12mo, pp. 31. London: J. E. Adlard.

Few questions appeal so universally to the human mind as that of deliverance from pain; but no less important is the inquiry how this deliverance can be most effectually and safely attained. The favorite anæsthetics have long been ether and chloroform. Both have their advocates; although the use of either is accompanied with a certain amount of risk, in consequence of which patients avail themselves of its benefits not without a feeling of trepidation. It is a singular fact that nitrous oxide, the first anæsthetic known in modern times (it was first adopted by Dr. Horace Wells, of Hartford, in 1844), should be the least in use of the three principal anæsthetics. The circumstances connected with its adoption, however, explain this fact to a certain extent. Dr. Wells, attending one of Dr. Colton's exhibitions of the laughing-gas, remarked that a party under its influence sustained accidentally what would, under other circumstances, have seemed a severe blow, without any appearance of suffering from, or consciousness of it. Surprised by this he requested Dr. Colton to administer the gas to him, and while under its influence, had a tooth extracted without experiencing any sensation. He accordingly used it extensively in his private practice, and, having effected numerous dental operations without inflicting pain, was induced to give a public exhibition. On this occasion, the gas-bag was prematurely removed in one or two instances, and, in consequence,

"the patient appeared to feel, and the medical spectators hastily condemned the laughing-gas."—p. 6.

Even on this occasion, however, some of the more judicious physicians present were of opinion that the gas might be used with advantage as an anæsthetic. But Dr. Wells was discouraged by the general verdict,

and the use of nitrous oxide as an anæsthetic, having been abandoned by him, was consigned to temporary oblivion—a result which was accelerated by the discovery about this time of ether and chloroform.

Dr. Colton, however, had not forgotten the experiment, and, after the decease of Dr. Wells,\* exerted himself for a long time, without success, to induce some dentist to try it in his operations. At last, in 1863, he was successful. For the last twelve years, the nitrous oxide, or laughing-gas, has been in continual and increasing use in dental operations, and the experience of each year has tended to strengthen the belief in its valuable qualities. We have ourselves witnessed a number of operations at the Cooper Institute under the influence of the gas as administered by Dr. Colton, and each additional experiment has convinced us more and more, not only of its innocuous character, but also of its peculiar adaptability for anæsthetic purposes, especially in operations of brief duration.

We are glad to learn, therefore, that the use of nitrous oxide is increasing in other countries. Of this we have satisfactory and interesting evidence in Mr. Fox's *brochure*, which shows that numerous English operators have applied the gas with complete success. It is gratifying to feel, not only that our own countrymen should have been the first to discover the availability of so potent an alleviator of suffering, but should also have been those to carry it to the highest degree of perfection yet attained.

Although nitrous oxide was discovered by Priestley as early as 1776, its properties were not extensively known to the public until the lectures of Sir Humphrey Davy in 1800. From that time it became a frequent subject of exhibition, under the name of laughing-gas; and Sir Humphrey even then asserted that,

"as nitrous oxide in its extensive operations seems capable of destroying physical pain, it may probably be used with advantage during surgical operations."†

It is a curious fact, but one which has not been generally remarked except by scientific men, that the elements of which this gas is composed are essentially the same as those of the air we breathe. There is, however, a material difference in the manner of their combination. In atmospheric air, the nitrogen and oxygen are simply mingled; each element continues to perform its separate function, the oxygen supporting life, and the nitrogen moderating its too stimulating properties. Nitrous oxide, on the other hand, is a chemical combination, exhibit-

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\* Since the above was written, we have learned some facts from which it appears that the precise amount of credit due to Dr. Wells may be presented at a glance, thus: "Dr. Wells died before he was able to convince the profession of the value of nitrous oxide; and, after his death (which occurred on the 24th of January, 1848), the gas fell into disuse and was consigned to temporary oblivion."

† *Researches*, p. 556.

ing the properties of neither of its constituents, but qualities peculiarly its own. It is that chemical combination of the two gases, in which the smallest proportion of oxygen is united with a given quantity of nitrogen. This proportion, however, exceeds that of atmospheric air, the proportion in the latter being—

Nitrogen.....	75.90
Oxygen.....	23.10

100.00, otherwise 26.63 to 8 ;

while in nitrous oxide the proportions are—

Nitrogen.....	68.60
Oxygen.....	36.40

100.00, otherwise 14 to 8.

This is a perfectly harmless combination, and can be used, when pure and properly administered, without any injurious effect; but we shall find very different results when we increase the proportion of oxygen in arithmetical progression. We have successively nitric oxide (14 to 16), which cannot be safely inhaled; hypo-nitrous acid (14 to 24), which is injurious to the lungs, even when mixed with atmospheric air; nitrous acid (14 to 32), which possesses that quality in a still stronger degree; and, finally, nitric acid (14 to 40), the most intensely corrosive of all substances, destroying nearly every substance it touches. Thus, in many varieties are these same ingredients combined, varying from the element the most absolutely indispensable to animal and vegetable life to that which is its chief destroyer.

It is a strong argument in favor of nitrous oxide, as an anæsthetic, that its elements are essentially innocuous. This is by no means the case with the other anæsthetics. Ether is distilled from alcohol by the action of sulphuric acid; of chloroform, the principal element is chlorine, a gas, which, in its undiluted state, is fatal to animal life, and even in its compounds not to be inhaled without danger.

Numerous experiments unite to show that all the unpleasant consequences which have ever resulted from the use of nitrous oxide—and these are seldom worse than hysteria or depression—have been due to an indiscreet admission of atmospheric air into the lungs before the patient was thoroughly anæsthetized. It has been further observed that, in every case of danger in the use of nitrous oxide, from an overdose or otherwise, the effects are immediately perceptible, and can be remedied at once; while, in the cases of ether and chloroform, the danger is often not manifest until it has become too late to save the patient.

A plausible objection to the use of nitrous oxide for prolonged operations has been drawn from its volatility, the effect passing off too rapidly to allow the operation to be completed. This difficulty, there

appears little doubt, will be eventually quite overcome, as it has been already, to a considerable extent, by the new forms of inhalers. But this objection does not apply to the lighter operations, such as the extraction of teeth, etc. In operating with the gas, however, too much importance cannot be attached, as Dr. Colton fully exemplifies, to careful preparation; to having every thing in readiness before the patient is placed under the influence of the anæsthetic, so that no time may be lost in seeking for instruments, or other delays, during which the patient may awake, or at least become less completely anæsthetized.

There is good reason to hope that this anæsthetic may eventually become available, even in prolonged surgical operations. A remarkable instance is given of an operation on the breast, in 1868, where the anæsthesia was maintained for twenty minutes. If this can be established, and the use of the nitrous oxide made an effective substitute for chloroform and ether, whose use has ever been, and still continues to be, fraught with danger, an advance will have been attained in surgery, the importance of which cannot well be overestimated; and the old laughing-gas, so often, in former days, a source of amusement, will take its place among the most priceless boons of mankind.

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*Opium Eating: an Autobiographical Sketch by an Habitué.* 18mo, pp. 150. Philadelphia: Claxton, Remsen & Haffelfinger. 1876.

IF this volume does not possess the fascination of De Quincy's inimitable "Confessions of an Opium Eater," it is calculated to prove a much more salutary warning against the use of the drug than the former work, of which Coleridge justly remarked, that it tended rather to lead others into the habit through wantonness, than to warn them from it. Here we have a straightforward, unadorned account of the actual effects of opium from the pen of one of its victims, who is deserving of the more sympathy that he did not lapse into its use through self-indulgence, curiosity, or even the reckless quest after relief from pain, but was beguiled into its use in the disguise of a different medicine, and had become its victim before he knew of what he was the prey. Moreover, the work is worthy of the more commendation that it does not appear to have been prompted by any desire for literary fame, but with the honest purpose of putting on their guard those who are as yet untrammelled by the degrading habit, and to have been produced under circumstances of actual suffering, from which the writer seems to have nerved himself to a work which he undertakes with apparent loathing, with the simple and earnest motive of saving others from his own miserable condition.

The first few chapters of the work are devoted to a description of

the author's experiences in the Southern prisons during the late rebellion. Captured at Chickamauga, on the 19th of September, 1863, he was at first confined in the Libby prison at Richmond, where his allowance, and that of his fellow-prisoners, was so small that, after three weeks' confinement, they were unable to rise to their feet without crawling up gradually by holding to the wall. Here he was so famished as to sell his shoes for bread, although no warmth was furnished to the prisoners, nor any blankets or clothing, until furnished by the Sanitary Commission of the United States. In Danville, to which the author was sent from Richmond, the prisoners were somewhat better fed; but the small-pox having broken out, many of them were vaccinated with poisonous matter, which proved more fatal than the disease itself. But the crowning horrors were experienced at Andersonville, whose frightful picture, as drawn by the author, we have not the heart to reproduce. Enough, that in one month, during which thirty-five thousand men were there incarcerated, the number of deaths averaged one hundred per day. In one instance only, of the sad detail of captivity in the South, do we find an instance of humanity, which it is gratifying to contemplate. This was at Goldsboro, North Carolina, where the ladies of the place, to the honor of their sex be it mentioned, despite the resistance of the guards, forced their way through the lines, and distributed provisions generally among the sick and needy prisoners.

When finally released on the capture of Wilmington, and sent to his home, the author's health was utterly broken down. At first, reduced by hunger, his stomach was hardly able to receive or retain food. As the system began to revive, a chronic headache set in, which increased eventually to such torture, that, every thing else having failed, the sufferer was induced to accept the services of a physician who had undertaken to cure him, expressly promising not to use opium or morphia. This man, under this solemn assurance, commenced a system of daily hypodermic injections. The patient recovered from the headaches, but discovered too late that he had been taking unadulterated sulphate of morphia. Alas! the habit was by this time formed. The patient had reached that point at which opium was a simple necessity, and could not be abandoned.

The most painful part of the work is the account of the efforts made to break the habit, and their invariable failure. The difficulty in all these cases does not appear to lie in the illness which follows the disuse of the drug. During the illness the patient is able to control the appetite, but it is at the period of recovery that the craving becomes irresistible. To a man whose time is at his own disposal, it might be possible, even at this stage, to resist and conquer the craving; but for a man who is constantly in harness there is no hope. Work he must; and work is impossible while the appetite is raging unsatisfied.

"The affinity between the brain and the stomach is most plainly demonstrated by the disease of the opium habit; the appetite feeds as much on the brain as on the stomach. I could not work; I could do nothing but look, and that in a blank and dazed way; and, being compelled to work, I took a small dose, thinking that would quiet the enemy and give me peace, and that thereafter I could probably worry it through. Cruel illusion! My unhappy fate willed differently, and the peculiar effects of opium can only be learned by bitter experience. I fell prostrate as before, with this difference, that I was less hopeful."—p. 66.

One important fact, to which the reader's attention will be especially directed in the perusal of the work, is that the "pleasures of opium," as De Quincy styles them, are of extremely brief duration. Even at the outset the exhilarating effect of morphia lasts rarely more than three or four hours, and is succeeded by a reaction which endures through the remainder of the twenty-four hours. A general collapse of the system, a nervous headache, an exhausted system, and general unfitness for work, are the symptoms of this reaction. As the habit increases, the stimulating influence becomes of shorter duration, until a state of the system is reached when it lasts but a few minutes, or is even imperceptible. The suffering and mental miseries on the other hand steadily increase.

"Days upon days my head has felt as though it were encircled by an iron helmet, which was gradually becoming more and more contracted, until it would literally crush my skull."—p. 76.

The brain is not the only sufferer from the use of opium. The stomach and bowels become a wreck. Sleep is destroyed; what passes for that refuge being either a deathlike torpor or a succession of horrible visions, nightmares, and dreams, which exhaust the sufferer more than his waking hours. This has to be undergone after every dose of opium, before it will be possible, even for the few who have the leisure to await it, to enjoy any thing like natural sleep. But the mental suffering involved is the most terrible of all; especially the nameless horror which steals over the patient on the approach of night. This can be compared but to a life in death.

"One seems to stand upon the very verge of the grave, breathing the atmosphere of the dead."—p. 111.

The moral effect of the use of opium is, if possible, still worse than its physical. It strikes at the very root of energy; it deadens alike the affections and the sensibilities. The opium-eater is placed out of the pale of sympathy with his fellow-beings. He has no ambition, no aspirations. "As a structure, he is riddled from turret to foundation-stone."—p. 103.

Painful as is the subject of the treatise, it is calculated to effect a greater reform than those which have indulged in flights of fancy, rhetorical descriptions, and the romancer's art. The work itself points its own moral. We can discover in it evidences of ability which, but

for the baneful and destructive habit, might have secured for the author a place among the distinguished writers of the age. What he is, his own words best tell. Let him give his own advice, which, if the reader will take to heart, he has not written in vain:

"When a man is once a confirmed opium-eater, all the pleasure he can derive from opium would not equal the enjoyment a well man receives from the animal spirits alone; and all the intellectual force obtainable from stimulation can never approach that which would have been his own freely in a natural condition."—p. 79.

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APPENDIX—INSURANCE : GOOD, BAD, AND INDIFFERENT.

LIFE AND FIRE INSURANCE.

1. *Reports of Insurance Cases in the Courts, etc.*
2. *Various Documents which exhibit Contrasts between the Different Classes of Insurance Companies.*

It is but too well known that the year about to close has witnessed the depression of all kinds of business. All interests have suffered, and, what is worse, they continue to suffer; although it is the general opinion, among those who have devoted most attention to the subject, that a favorable reaction is not far distant. This, however, is not the question we mean to discuss on the present occasion; the task we propose to ourselves is a much more simple and less ambitious one—namely, to take a glance at the good and evil done in the past, but especially in 1875, in the world of insurance.

None will accuse us of any disposition to connive at the machinations of insurance companies; it would be generally admitted, on the contrary, that none have more persistently denounced such. At the same time, it is not because we have regarded insurance malefactors as worse than malefactors, in general, that we have taken so much pains in every number of this journal for fourteen years to unmask such companies as seem to be only obtaining money under false pretences. Even the most unprincipled underwriters—those whose corruption and dishonesty we have exposed from time to time—regarding them as no better than professional sharpers—would compare not unfavorably with the faithless, fraudulent men who too often infest all other professions and pursuits. In short, we have never lost sight of the fact, that as bad men, or worse, have been found occupying some of the highest and most responsible offices in the gift of the people—such have been found among

our legislators, in our national councils, nay, among the dispensers of justice in our highest courts.

But we have always thought that there is no perfidy more base than that perpetrated against the widow and the orphan. If at any time we have seemed to infuse undue bitterness into our criticisms on underwriters, it has been on this account; we can honestly assure our readers that in no instance has it resulted from any personal resentment; that, of all the underwriters we have criticised in these pages, during so long a period, there is not a single one on whom we would inflict the slightest personal injury to-morrow, if it were in our power to do so.

Since we can thus emphatically disclaim the slightest feeling of malice against those underwriters whose conduct toward the widow and the orphan we have assailed most "savagely," we think we may affirm, on the other hand, without fear of contradiction, that we sincerely admire and esteem those underwriters whom we have always regarded as the faithful, unswerving friends of the widow and the orphan.

But let us proceed with our retrospect. The principal cause of the decline in the business of life insurance is unquestionably the decline of popular faith in the system. That the public confidence in life insurance has materially diminished cannot be doubted; and one prominent reason for this is, that while companies and their agents represent the institution to be one purely benevolent, having for its object the protection of the widow and the orphan, and holding property as a sacred trust for them, and them alone, in practice many of them treat it as a simple business speculation, in which their sole object is to receive as much money as they can, to enrich their stockholders and directors, and to pay out as little as possible. The intelligent part of the public cannot fail to contrast the actual practice of these companies with their professions; and the hastily-judging people soon come to the conclusion that the entire system is an imposition; that they are depriving themselves and their families of their hard earnings to pay money into the hands of those companies, which, in all probability, will never be returned to their widows and families, but will simply go to increase the dividends of the stockholders, and the salaries of directors and other officials. Accordingly, they discontinue the payment of premiums, allow their policies to lapse, or have them cancelled at a heavy sacrifice; and resolve henceforth to trust to their own exertions rather than rely on what they consider the broken reed of insurance.

The fact which all would do well to keep in mind is, that insurance is, in the main, a business contract. It is the formation by individuals of a fund out of which the families of each are entitled to a certain payment in the event of their decease. As the system is organized, the contribution of each individual is rendered in the shape of an annual pre-

mium; and the distribution regulated according to the amount of the policy. The stockholders stand in the position of individuals who have advanced sums of money to create the fund in the first instance; and are, of course, entitled to a reasonable remuneration in the form of interest, or dividends. The directors and officers are the trustees of the fund, for the purpose of preserving and distributing it; the latter are likewise entitled to proper remuneration for their services.

At the same time it will be seen that from the sacrifices often involved in the contributions to this fund—each policy-holder sacrificing throughout his life what may be a material portion of his annual income, to insure a competence to his family when he shall have been removed—and from the general helplessness of the class intended to be benefited by it—this trust is of a peculiarly sacred character; and any attempt to speculate in the funds for purposes of private emolument, or to withhold from the families of the contributors, on any unjust pretext, what they had given the earnings of a lifetime to secure, must be particularly odious. The idea may be illustrated by supposing the inhabitants of a new colony to agree to contribute annually, each a certain amount—some more, some less—according to their means, to create a fund, out of which, on the decease of each contributor, his family should receive a *pro rata* share for their support. Suppose certain individuals, more wealthy than the rest, agreeing to advance a certain sum for immediate use, on condition that they were to receive, instead of interest on their money, so much of the income of the entire fund as might remain at the close of each year, when the expenses and death shares had been paid. Imagine, finally, certain chosen parties invested with the management of the fund for the common benefit, and with a remuneration for their services. Would it not be clear that the parties first entitled to consideration were the families of the contributors for whose benefit the fund was created? that the main object of all parties should be to ensure to them the payment of their shares? and that any attempt to withhold them, unless in cases where from fraud, designed or unintentional, such payment would be an injustice to the other contributors, was a crime of the deepest dye? that the parties who had advanced money to the fund were to be provided for in the second place; and that the rights of the officers were limited to a proper remuneration for their services?

But in how many insurance companies do we find this principle directly reversed!—for no reason in justice or equity, but simply because the directors, having the control of the company, consider, in the first place, how they may enrich themselves, and secondly, how they may secure the largest dividends for the stockholders; whereas, the policy-holders, on whom every influence has been brought to bear to induce them to invest their money in the purchase of policies, are paid only in

cases where payment cannot be evaded, and are often, by mere sham defences, coerced into an almost ruinous compromise to avoid the expense and delay of a law-suit.

Our readers understand by this time that there are three classes of companies: The first and most strongly to be condemned are those which, with an insufficient capital, or a capital sufficient merely to carry on business with the strictest economy and caution, invest their funds in speculative securities, squander them in costly and ostentatious offices and furniture, and in enormous salaries to their officers. These companies allure policy-holders by flaming advertisements, by unprincipled agents, and by the general parade of imaginary wealth; while, if we examine their reports, we shall generally find no small portion of their assets to consist of such items as "cash in bank," "cash in principal office," "value of office, building, and furniture," "premiums in course of collection," and, perhaps, in stocks of a very dubious character, which have probably been purchased merely with a view to speculating in the market. For companies of this class there is generally but one issue—a final smash-up, and the passing of the assets into the hands of a receiver.

One of the most flagrant exposures of the devices resorted to by such companies as these to swell the bulk of their nominal assets, and thus delude the public, was made in the proceedings instituted during the past year against the American National Life, of New Haven. Our readers may recall the class of securities which were returned as assets—agency balances; bonds with accrued interest which had remained unpaid for four years; subscribed capital which had never been paid; rent paid by the company to itself; a valuation of the land and buildings which was proven to be immensely overestimated; uncollected premiums, and other similar items; also Mr. Noyes's jocose attempt to justify his peculiar mode of estimating assets. This company, strange to say, has not yet been dissolved, the judges having decided that this deficiency in its assets does not exceed \$50,000, which it is allowed to make good. One result, however, of this exposure is, that the policies in force have diminished to the extent of two millions of dollars! and it is whispered that some of the officers have been availing themselves of the litigation to compromise with the representatives of deceased policy-holders, and thus make merchandise of their misfortunes.

Even the policy-holders in the New York National Life, which were reinsured in the New Haven company, and who have the first claim as preferred creditors to the \$100,000 held by the New York Insurance Department, have, it is said, in many instances been induced to settle their claims for thirty cents on the dollar.

We now turn to another class—companies whose assets are large, their financial position strong, and which, in some instances, are not only prosperous, but enormously wealthy. In these companies the policy-holder incurs no risk of loss from any financial causes; but an obstacle almost equally insuperable will be found to stand in his way. These companies, though possessing ample means, have not the will to pay, and pay they rarely do, if, by any possible flaw in the policy, any alleged breach of its numerous conditions, or any circumstances connected with the decease of the insured, will afford them any pretext for litigation. These are the companies which erect the most costly—if not the most architecturally beautiful structures, such as the tower which the Mutual Life has recently erected on its new building in Boston, at a cost of twenty-five thousand dollars. They indulge in extensive mortgage transactions, such as those of the New York Life, in Harlem, and the recent affair of the Equitable with the estate of Dr. Stevens, in which it made a profit of nearly \$9,000 on the purchase of the mortgaged premises under foreclosure, and their subsequent sale; and then, in defiance of its attorney's positive assurance that no judgment for deficiency was asked for, commenced an action to recover a deficiency of \$2,537.15, which had been reported on the original sale.

In a word, these are the companies whose paramount object is to enrich themselves, and who, while throwing over their own employes the shield with which they profess to screen the widow and the orphan—witness the sham group of statuary which decorates the front of the Equitable building—are remorseless in the pursuit of any unfortunate outsider who incurs any liability to them. We have an instance of this in the suit instituted by the Equitable against the bondsmen of its agent, H. F. Jennison, to recover a deficiency of \$12,000, alleged to exist in his accounts, and the cross-action brought by Chauncey D. Bowen, one of these bondsmen, to restrain the prosecution of the suit. Mr. Bowen boldly avers in his complaint, that the deficit was occasioned

by Mr. Jennison using the funds of the company in the construction of his own house; that it was done before he (Bowen) became his surety; that the company ascertained the fact, but still continued its account with Jennison; that it took a mortgage from him to secure the deficiency, which mortgage it has taken no steps to recover; and what is stranger than all, that Jennison is still in the employment of the company. Should these averments be proven, we shall have a state of affairs to which the history of insurance companies presents no parallel.

But with all the wealth which companies of this class accumulate, they resist the payment of every policy for resistance to which they can find the slightest pretext. The character of the defences which they set up are too well known to render it necessary to multiply instances. Our readers may remember the suit of Maria Inman against the Globe Mutual Life, which resisted payment on the ground that one of the premiums had been paid by a note, which was met at maturity, but which it pretended the agent had no authority to accept; also the suit of Ripley against the Mutual Life, which refused payment on the ground that the assured had misstated his age, although he had stated frankly in the application that he did not know his age, but only guessed at it. This, it may be remembered, was a case in which the policy had been taken out only on the representation that it was required as a condition precedent to obtaining a loan from the company; and that the company had continued to receive premiums for seven years without the slightest objection to the statement made by the insured as to his knowledge of his age. But the last few months have brought one or two more cases to light, which illustrate more fully than any remarks of ours could do, the tendencies of this class to the resistance of lawful claims.

Oliver C. Fitch, on taking out a policy in the American Popular Life, had stated in his application that he never had any local disease or injury in any organ, and that he had no family physician, or acquaintance with a medical man who knew him well. The answers appear to have been given in good faith; but after his death the company raked up the facts that some six years previously he had had a disease of the eyes, which received the care of a physician for about a month. This was sufficient to give the company an excuse for contesting the claim. However, the defence has received its quietus from the Court of Appeals, which decides that, where the language of the appli-

cation and policy is such as to give the insured every reason to believe that nothing but gross carelessness or deliberate misrepresentation will nullify the policy, and that, if the answers are given in good faith, the claim will not be contested, and when the questions are *numerous, puzzling, and very difficult to answer correctly*, the answers will be regarded as representations, although declared in the policy to be warranties, and fraud must be conclusively shown to avoid the policy.

A still harsher case, in which the company's resistance proved successful, is that of Rockner against the Knickerbocker Life. This company issued a policy December 11, 1868, on the life of John Rockner, the consideration of which was a premium of \$212, then paid, and an annual premium of the same amount, to be paid on the eleventh of December in each year. On December 11, 1869, Rockner delivered to the company his promissory note for \$120.84, payable in four months, with interest, in part payment of premium, stipulating that the policy should be void if the note was not paid at maturity. The note matured April 11, 1870, and on the twelfth of the same month—one day later—the amount was tendered. The company refused to receive it, claiming that the policy had been forfeited by non-payment on the specified day. This delay of a day was, it would seem, the result of an honest mistake on Rockner's part, he supposing the note not to fall due until December 12th. The company cancelled the policy. We may presume that the officers had remarked signs of failing health in Rockner, as we are informed that he died in the following August; at all events, they insisted on the forfeiture, and, unhappily for the cause of justice, were sustained by the Court of Appeals. Thus the Knickerbocker, after pocketing \$303.16 of the poor man's money, turned him and his family out into the cold for the accidental delay of a single day!

There remains still a third class of companies: those which have not only the ability but the will to meet all their just liabilities; who never resist payment of a policy unless in cases of such evident fraud or carelessness as would render payment an injustice to the other policy-holders. These are not always the companies that erect the finest buildings, or realize the largest fortunes on mortgage investments; but their finances are maintained in a sound condition, and are well and carefully invested, and regarded as a trust for the policy-holders, no less than the stockholders and directors.

Were it not that the memory of the public is proverbially bad, it would be needless for us to mention the companies which have thus distinguished themselves. Indeed, had not the perception of the public been as defective as its memory, it would not have been necessary for any one to have pointed out these companies. This is eminently true, for example, of the New England Mutual, which does credit to the name it bears. Just as certainly as the people of New England are at once the most enlightened and most industrious of all the communities of the United States, is this company at once the best managed, the most conscientious, and most faithful in its dealings, and the truest safeguard to the widow and orphan of all the New England companies; nor is it surpassed in those essential respects by the best companies anywhere. Another company, which it is equally easy to distinguish by its good works, is the Manhattan Life. For sixteen years this company has never ceased to represent the best characteristics of the metropolitan island, whose name it bears. Amid all the trials and temptations of this somewhat eventful period, its escutcheon has never been tarnished for a single day. Then the justice-loving, law-abiding, honest and thrifty State of New Jersey has been similarly represented by the Mutual Benefit—a company which illustrates the fable of the pelican, set forth on its shield, by undisputed tangible facts. The Continental Life is not yet old enough to have fully established its character, although its character is fully developed, and its reputation above reproach. In proportion to the time it has been at work, its record is worthy of comparison with that of the best. Nor has any thing occurred during the year to diminish our high estimate of the American Life, of Philadelphia; on the contrary, it has given the public, during that time, good reason to believe, that the more its intentions and powers are put to the test, the greater will be the confidence which it inspires. If the St. Louis Life has been guilty of any back-sliding during the year, the fact has not been brought to our notice. But, had any unfavorable representations in regard to that company reached us, they should have been well authenticated to induce us to accept them. As the matter stands, we take it for granted that it continues to maintain its character as the strongest and best of all the western companies.

In four or five instances out of a hundred, we have found that we had

been led into error in regard to the course of some companies; but, in every such instance, it has afforded us sincere pleasure, not only to rectify the error, but to bear testimony to the just claims of the object of it to the confidence and patronage of the public.

We were long most unwilling to believe that the principal managers of the New York Life and the Equitable could be induced to pursue any unworthy course; but the facts so multiplied that it was impossible to deny any longer that both Mr. Franklin and Mr. Hyde had succumbed, in an evil hour, to the corrupting influence of money. Otherwise, we might never have had to denounce either "iron-clad insurance," or "pawn-office insurance," two kinds which are now so characteristic, respectively, of the two corporations mentioned. As for the manager of the Mutual Life, we cannot say that we ever expected from him any straightforward course; had such been pursued by that company, had it been actuated by any higher motive than the love of money and personal aggrandisement, we confess that we should have felt not a little surprised.

There was a time when we regarded the Knickerbocker Life as one of our most faithful companies; there was also a time when we had almost unbounded confidence in its third president. Even to-day we cannot believe that some of the queer performances of that company have the sanction of so logical and generous a mind as that of Mr. John A. Nichols. Many a time we denounced the United States Life under its former auspices. We were very willing to believe, for various reasons, that its present chief officer would prove a reformer; nor did we fail to present those reasons to our readers. For a while, Mr. De Witt seemed to justify the best opinions entertained of him, even by his warmest friends; but of late he has seemed to waver, if nothing worse. We would be glad to see some evidence that this is a mistake, and would hasten to communicate it to our readers. The Globe Mutual had our confidence only for a very brief period. Even during this short time, we sometimes had our misgivings. We rather wonder at certain things attributed to the Metropolitan Life, for we know some excellent men who have implicit faith in the integrity of its president. During its early career we made some criticisms on the Universal Life. Whether we were right or wrong then, we cheerfully accept the general verdict in its favor at the present day.

For years we had predicted the failure of the Charter Oak, but always maintained that Mr. Walkley, its president, could and would have saved it had he not been continually thwarted by a vice-president (Mr. White), who had neither ability nor integrity, and but a very limited amount of common sense. This company, we understand, is now chiefly managed, at least in its financial department, by Mr. Furber, one of the officers of the Universal Life, who, including Mr. Bewley, have been chiefly instrumental in building up the latter company to its present condition of vigor and stability. If it be true that Mr. Furber may now manage the Charter Oak in his own way, we can assure the policy-holders of that company that, instead of regretting the change of management, they have good reason to be glad of it, since their interests are now in the hands of an underwriter who is able and honest in an eminent degree. Referring to the Charter Oak reminds us of another company which we had long regarded as one of the best managed companies in the United States. We allude to the *Ætna*, which, in its palmy days, was chiefly managed by its secretary, the same gentleman who is now its presiding officer. It is a remarkable fact that since the secretary became president, he seems to have relaxed all those energies which, while he occupied a subordinate official position, had placed him in the foremost rank of American underwriters. To this, however, it is but justice to add, that never to this day have we seen any proof that Mr. Endors has made any attempt to wrong the widow or the orphan.

Another company, which for a long period had ranked among the first in energy, progressiveness, and fair dealing, is the Security Life. We believe it has never ceased to be honest and honorable. The worst that can be said of it is, that during the last two or three years it has fallen into a state of lethargy, which has now become so chronic that it threatens to be perpetual.

How the Phoenix Mutual is doing under its new management—whether it is advancing or retrograding—we are not informed. All we can say about it is, that, for a long series of years, it was one of the most prosperous of our life companies. If its present officers evince as much vigor, ability, and integrity in its management as their predecessors, neither its policy-holders nor its stockholders will have any reason to complain.

The present condition of fire insurance interests seems quite as precarious as that of life insurance interests. In the case of the former, as well as that of the latter, we refrain from making particular criticisms until the forthcoming annual statements are before us.

The prospects of the National Board of Fire Underwriters do not appear very encouraging. Its main object seems, so far as we can comprehend it, to be to fix a rate of insurance below which policies shall not be issued, or, as the board styles it, "an adequate rate." The penalty for not obtaining this rate is loss of membership in the board. Of course, such an organization carries within it the germ of its own dissolution. Companies that can control rates such as the board deems "adequate," are not likely to insure at a lower figure; while those who cannot are apt to yield to the first temptation, and accept what they can obtain, whether or not by so doing they forfeit a position the continuance of which would only accelerate their destruction. Hence, they gradually drop out one by one.

If, instead of endeavoring to keep up rates by a system of combination, these companies would economize in another direction—pay to their officers salaries less disproportioned to their assets; expend less money in offices and office furniture; and keep more money profitably invested, and less in bank and "in the principal office"—they might be enabled to issue policies at such rates as they deem equitable, without asking leave of the National Board, and at the same time be less liable to a sudden and disgraceful collapse in the case of a conflagration like those in Boston and Chicago.

A new device appears lately to have suggested itself to the managers of certain fire companies. This is nothing else than the issuing of circulars inviting policy-holders to surrender their policies for cancellation, and offering to return the unearned premium at net short rates. This course has been adopted lately by the Farm Building Fire, which, it may be remembered, reported available assets of \$158,043.92, while its premium liability on outstanding risks amounted to \$65,493.81 only, and its total liabilities to \$71,595.56. If the report were correct, the company ought to be able to meet all its liabilities in full; if not able, its proper place is in the hands of a receiver. In any event, it seems far from creditable to attempt a proceeding of this nature for the purpose of saving money for the stockholders which ought to be paid to the

policy-holders. When we remember that, with most companies, the month of January is that in which they declare their dividends, this proceeding appears very significant.

The oppressive use of technicalities in a policy to evade payment of a just claim, is, we regret to say, a practice not limited to life companies. We have a remarkable instance of the use of two such technicalities, one of which was unfortunately successful in the defence of the claim. The action was brought against the Germania Fire by one Rohrback. He had taken out a policy on "his two buildings," which buildings actually belonged to his deceased wife's estate, of which he was a creditor. In the application, which the policy made a warranty, he stated that "his deceased wife held the deed," and, moreover, made a full statement of all the facts to the agent who filled up the representation. The company set up, as one ground for refusing to pay the loss, that the policy issued to Rohrback described the premises as "*his* two buildings," whereas they belonged to his wife's estate. This defence the court promptly overruled, holding that the phrase was merely descriptive, and not a warranty of ownership, and that the plaintiff had an insurable interest in the premises. In the other defence, which was, at least, equally disingenuous, the company has, we are sorry to say, succeeded. The policy contained a provision that any interest less than absolute ownership should be expressed in it, or that the policy should be void. In this policy the interest of the insured as a creditor was not expressed, although he had fully stated it to the agent; and the fact that the latter had neglected to insert it was held not to bind the company, because the policy stipulated that the agent should be considered the agent of the insured, and not of the company under any circumstances. No wonder that Judge Folger, in delivering the opinion of the court, remarked that "it was to be regretted that corporations of the power and extended business relations, with all classes in the community, which insurance companies have, should prepare for illiterate and confiding men, contracts so practically *deceptive* and *nugatory*, and should, in cases as free from fraud and wrong on the part of the insured as this is, hold their customers to the letter of an agreement so entered into."

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"The editor, Edward I. Sears, LL.D., has a scholarly mind coupled with a critical spirit, which gives the Review a decided character and a value above those which never express a decided opinion, but shift with the current. There is a wholesome spirit of freedom presiding over its columns, which the thoughtful will appreciate. The country needs the National Quarterly, for it is, *sui generis*, moving in an orbit peculiarly its own."—*Providence Post*.

*From the Boston Globe.*

"Two articles have given us great amusement, that on 'The Puffing Element in American Literature,' and that on 'Pope Alexander VI.' \* \* \* We have read the article with roars of—we trust—innocent laughter. There is something in American Roman Catholics which strangely distinguishes them from their Italian brethren who profess the same faith. *They can swallow anything*; the Italian variety of the species is more critical. Still, we patriotically stand by our countrymen, and shall hereafter inscribe Pope Alexander on the list of our saints. There are ugly charges against him, such as licentiousness, incest, and murder, but we concede that the writer in the National Quarterly has shown that they are ill-founded. It is to be said that the editor of the REVIEW, Dr. Sears, while consenting to print the article, emphatically repudiates its conclusions. He, as a thinker and scholar, is inclined to the common opinion of civilized mankind, that Alexander was a scamp rather than a saint."

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**Extracts from Reviews and Notices of last (March)  
Number, from Leading Journals.**

\* \* \* "The most remarkable paper is 'Our New York Scientists and their Remarkable Discoveries,' which reviews Professor Chandler and his relations to the American Institute, and is authority for a statement that there is scarcely a restaurant of any extent in the city to which there is not attached a scientist of the class alluded to as 'analytical chemists.' "—*New York World*.

\* \* "The paper on 'Our New Scientists' fairly takes the hide off, in its exposures of the blunders and foolishness of Prof. Chandler, the president of the New York Board of Health." \* \*—*Boston Globe*.

\* \* "Our New York Scientists and their Remarkable Discoveries,' in which some of the Gothamite pretenders to science are dealt with not one bit too severely. These persons, chiefly professing to be the votaries and the masters of chemistry, have succeeded in obtaining notoriety rather than reputation by much pretentious display, but the mischief is that sometimes they succeed in obtaining the occupancy of chairs, among the faculty of universities, and very frequently trade upon this position. The reviewer strongly denounces, giving illustrative examples, and not hesitating to mention names, in which some of these 'professors,' acting as analyzing chemists, give certificates to a variety of the inventions and modifications, from tooth-powder to meat extracts, from pomatum to gas, from pills to milk, from hair restorers to 'metaline' as a substitute for lubricators in machinery. No matter how small, or how quackish the article, it can be and constantly is certificated as a great boon to the world, on payment of the fee for analyzing, and in some instances the person doing this may be found to have a pecuniary and proprietary interest in the article thus highly recommended." \* \* \*—*Philadelphia Press*.

\* \* "In the March number of the National Quarterly Review, Dr. Sears critically examines the educational systems of Germany and France, as set forth in the reports of Victor Cousin and Mathew Arnold, and also institutes a comparison with certain American universities, colleges, etc., not at all favorable to the latter. One of the first points of criticism he makes is the ungracious sensitiveness of American institutions to wholesome censure; closely connected with which is the equally harmful vanity which seeks the adulation of the press and public, regardless of truth. Evidently the plain-spoken editor of the Quarterly has felt the indignation of sorely-wounded educators whom he has failed to appreciate at their self-rate value. This is not to be wondered at, as we judge from the style of criticism applied to certain well-known educators in this article. Nevertheless, it is evident that the purpose of the critic is essentially good and useful." \* \*—*Syracuse Journal*.

\* \* "The last named article is a critical review of the insurance companies and their style of business, showing the tricks of making statements, the schemes for swallowing up the smaller concerns, etc., etc. It gives a high character to the Mutual Benefit of this city for soundness and fair dealing, and is especially severe upon the New York Equitable, which it charges with a grasping policy in the treatment of mortgage debtors and others."—*Newark Advertiser*.

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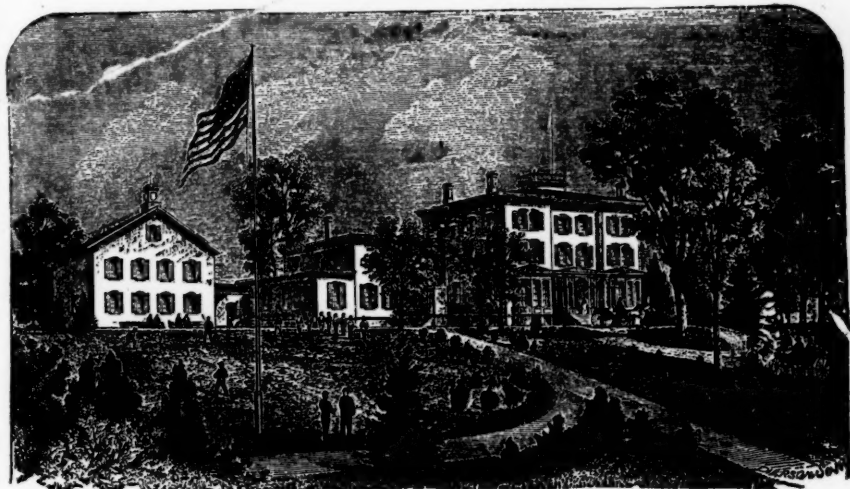
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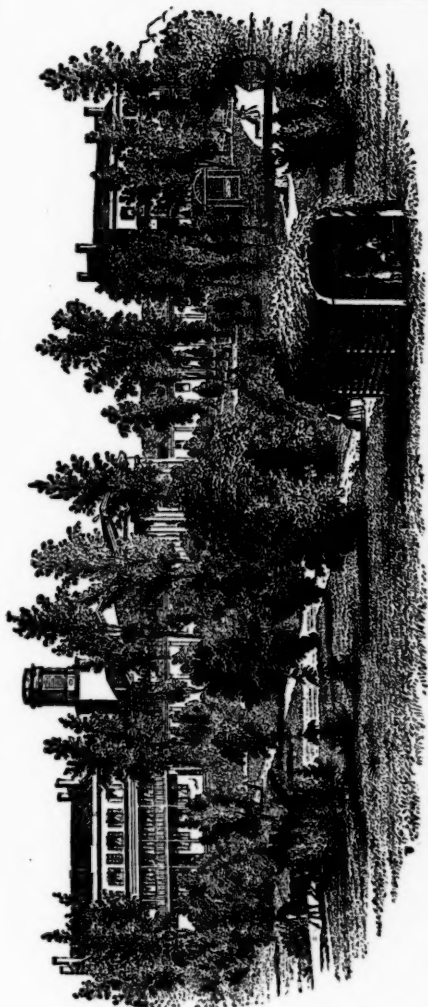
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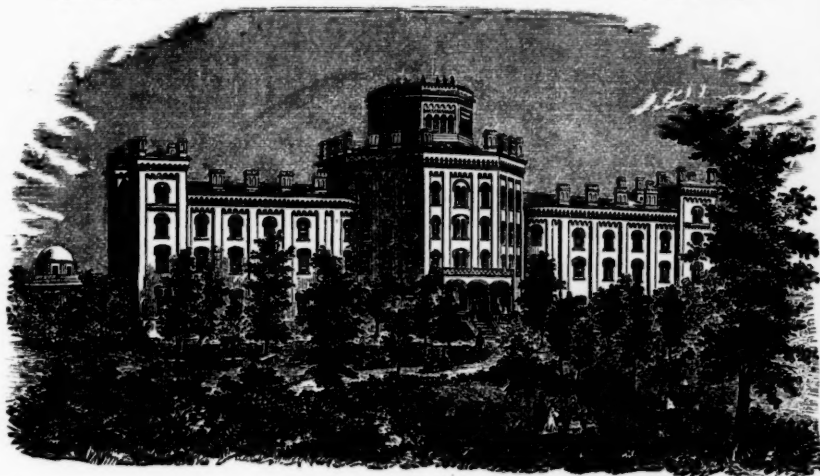
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